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ABSTRACT

This package is intended for use in home economics classes focusing on nutrition and food preparation and service. The teaching guide is divided into two parts. The first centers on selected first-time facts on nutrition, meal planning, and basic food preparation skills. It includes modules on nutrition, meal management, initial steps in food preparation, baking and frying skills, and microwave cooking. The second part combines basic food preparation skills with food service career awareness. It includes modules on long-term career opportunities in the food service industry; food service responsibilities; career planning; basic food preparation skills (deep frying, pan frying, grilling, salad making, and coffee making); fats and oils used in food service; and food service sanitation and safety. Each part of the guide also contains program objectives, a description of the target audience for which the part has been developed, timing, teaching suggestions, ideas on using values clarification as a technique to develop career awareness, student worksheets, and transparency masters. Food and kitchen safety checklists are also included. (MN)

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Food Preparation

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I. Food Facts For Home
II. Facts About Foodservice

CE 049 875

Procter & Gamble
EDUCATIONAL SERVICES

BASIC GUIDELINES FOR HOME AND FOODSERVICE

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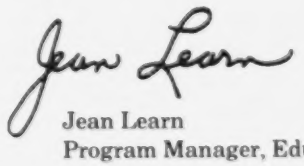

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Introduction

FOOD PREPARATION . . . FOR HOME . . . FOR FOODSERVICE is a two-part educational kit from Procter & Gamble.

PART I, FOOD FACTS FOR HOME, (pages 2-46) centers on some food basics—first-time facts on nutrition, meal planning and some food preparation skills.

PART II, FACTS ABOUT FOODSERVICE, (pages 47-88) combines the "how to's" of basic skills with foodservice career awareness. It is designed to give students an overview of the Foodservice industry, help them recognize what it offers longterm in careers, and instruct them in some basic skills.

Part I.
FOOD FACTS FOR HOME

FOOD FACTS FOR HOME, from Procter & Gamble, centers on some food basics–first-time facts on nutrition, meal planning and some food preparation skills including microwave cooking. It is a contemporary learning package, incorporating values clarification as a teaching technique, and designed to provide students with good starting principles on which to build their food preparation know-how and skills.

Program Materials

Instructional material in this Educator Resource Guide is organized into six modules. Each module includes objectives, background information and suggested classroom activities which can be adapted to specific needs. (Wider margins are provided on all pages for teacher notes).

–The teacher may wish to use the background information as the basis for a lecture period or as a tool for leading class discussion on each module.

–Some teachers may also wish to assign certain students or teams of students to summarize background facts and report them to the class.

Program support materials are drawn from the Educator Resource Guide and are designed to demonstrate program points through student involvement/activities.

- Student Worksheets (set of fifteen, easily reproduced): a nutritional word scramble; a values clarification exercise to develop food awareness; a crossword puzzle of cooking terms and abbreviations; rating scales on some basic cooking skills; a comparison chart, comparing conventional and microwave cooking methods. Make copies (one per student) or write out information on a blackboard and have students copy.
- Master Visuals for making overhead transparencies (set of four); involvement exercises to sum up some learnings about nutrition; function of ingredients; decision-making about cakes; comparison of frying methods.
- Wall Chart–A concept-building poster.

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Program Support Materials

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Program Objectives

These materials are designed to help students:

- Understand principles of good nutrition
- Identify functions and sources of nutrients
- Plan meals which satisfy personal and nutritional needs using sound management techniques
- Follow good shopping techniques
- Learn and evaluate basic food preparation skills, especially those concerned with baking and frying

Target Audience

FOOD FACTS FOR HOME is planned for use with male and/or female students, grades 7-12, enrolled in a basic foods course. Materials can be adapted to a variety of courses which deal with units of study in Foods and Nutrition (e.g., Single Living, Homemaking, Family Living and Foods).

In addition, youth group leaders—4H, scouts, clubs—and adult program leaders will find the materials useful in an informal setting.

Timing

FOOD FACTS FOR HOME is planned for use according to your needs. Depending on your curriculum, level of student achievement and/or time available, you may want to use all of the program materials or select a few to be combined with other resources you have at hand. In this way, you can use FOOD FACTS FOR HOME as a planning base for three or four class sessions or as a self-contained learning package for use over a period of several weeks.

This kit works well with a companion kit from Procter & Gamble, "Frying and Baking FUN-damentals".

To The Teacher

We suggest that teachers review the following background information on "Values Clarification, A Technique to Encourage Personal Growth" before beginning the unit.

Values Clarification, A Technique to Encourage Personal Growth

Values are personal ideas about what is important, or perhaps more clearly, what is most important.

Food, of course, is a value laden topic. Consciously or unconsciously a person weighs the relative importance of religious beliefs, cultural habits, a concern for good health or economy in selecting food. Similarly, values influence the way a student approaches learning about nutrition, meal planning, food shopping or related concepts.

Recognizing this, FOOD FACTS FOR HOME was planned to include values clarification, a dynamic and continuous method for helping people identify and strengthen their values in a logical, consistent manner.

Values clarification first allows people to *identify* their own values, then *strengthen* or *reaffirm* them and finally, *order* and *act* on them. In the values clarification process students are involved in a series of exercises to recognize and sort values and, if necessary, change current habits to conform to new understandings.

The educator moves from an "instructing" role to a "facilitating" one and openly accepts the fact that some students will be more interested in learning about one concept than another.

Some educators enjoy sharing their own values with students during values clarification exercises; other educators are more comfortable not sharing values. Either way, values clarification techniques work well and encourage personal growth by helping students learn about themselves.

The rules of values clarification are simple:

- there are no right or wrong answers;
- every person is entitled to give the "most right" or "most comfortable" answer to any question, or refuse to answer;
- each exercise is non-threatening and all possible answers must be equally appealing when viewed objectively.

Here are some examples of values clarification exercises planned to help identify values which are included in FOOD FACTS FOR HOME:

1. Student Worksheet #2, "What Foods Do You Like and Why?" See Module II, Learning Activity 2, Page 16.

List 10 foods that are your favorites for breakfast, lunch, dinner or snacks. How many foods appear in more than one list? How many types of food appear? What are the characteristics of foods listed? Are they simple to make, easy to serve, nutritious, typical of a cultural/religious heritage? The follow-up classroom discussion could allow students to get a better picture of their food habits and, perhaps, how these habits are influenced by other factors such as convenience, nutritional awareness, etc.

2. Student Worksheet #3, "Bargains, To Buy or Not To Buy," Module II, Learning Activity 3, Page 16.

Look through a grocery advertising section and record bargains you would buy, others you would not buy. Were you equally alert to bargains in all categories of food? What factors influenced your decisions? Follow-up class discussion could allow students to recognize their personal focus on food preferences as related to food shopping. This exercise might encourage them to adapt a more open attitude and consider trying new foods.

Two examples of values clarification techniques which help strengthen or reaffirm values:

1. See Module I, Learning Activity 3, Page 14. Assign students to look for nutrition information news and present a 5 minute "news summary" at the beginning of the following week. Since each student will be researching his/her own 5 minute report, personal values will influence the selection of topics. For example, a weight conscious student may report on several new food products or new trends in weight control; a student who follows a diet strictly prescribed by religious or cultural habits may report on news related to these special food habits. This exercise will encourage a student to focus on the values which affect his/her food choices and perhaps do additional study of them.

2. See Module III, Learning Activity 8, Page 26. Deliberately set some safety hazards in one of the kitchen units and give a team of students five minutes to locate and correct every one. This exercise allows students to identify hazards and correct them in order to emphasize health and safety as an important value. Ideally, it will encourage students to be alert to safety hazards in their own homes and plan safe working environments.

Values are guidelines for choices. They relate to the "meanings of food." As an educator you'll think of many other learning experiences which will help your students define their values and begin to act on them as they buy, prepare or eat foods.

This overview of values clarification is intended to give you a start by reviewing the basics of the technique. If you would like more information on values clarification, refer to the following books:

Simon, S., Howe, L. and Kirschenbaum, H.; *Values Clarification, A Handbook of Practical Strategies for Teachers and Students;* New York, Hart, 1972.

Simon, S., Howe, L. and Kirschenbaum, H.; *New Strategies for Values Clarification;* New York, Hart, 1970.

Raths, L., Harmin, M., and Simon, S.; *Values and Teaching;* Charles E. Merrill, Columbus, Ohio, 1966.

Module I. Nutrition Know-How

Objectives: The student will be able to:

- Identify the functions of key nutrients.
- Understand the importance of nutrition in maintaining good health.
- Identify the typical food sources of key nutrients.
- Identify the daily recommended servings for teenagers for milk, meat, vegetables, fruit, bread, cereal foods.

What is Nutrition?

Nutrition is the science of the relationship between the *foods* we eat and the *health* of our bodies.

While there are many factors that can contribute to good health, the selection of the proper quantities and types of foods in our daily diets is the basic element in developing sound bodies that grow and function well.

Why are food choices so important?

Proper food selection is a basic requirement for healthy bodies.

"Unless the food consumed supplies all the elements required for normal life processes, the human body cannot operate at peak efficiency for very long." (USDA)

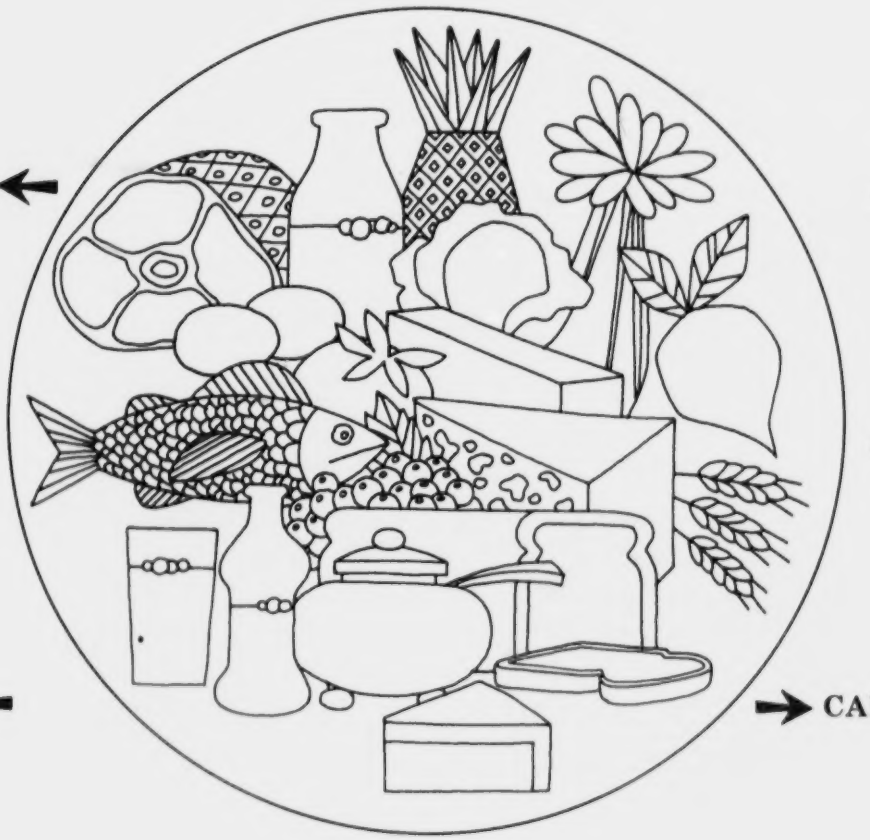
Well-nourished individuals are aware that to meet the nutritional needs of the body they must select a wide variety of foods.

What foods do you need to be a nutritionally healthy person?

Foods actually supply more than 50 individual nutrients that the body requires or uses for optimum performance. Each day we should consume foods that provide the nutrients we need. Individual foods contain different quantities of essential nutrients.

Food energy is needed by the body so that it can perform physical activity, maintain body temperature and carry out the basic processes of growth, maintenance and repair. Food energy is measured in units of Calories that are derived from fats, carbohydrates and proteins. Excess food energy is stored in the body as fat.

Eating appropriate amounts of a wide variety of foods helps us obtain all the nutrients we need and assures good nutrition.



What foods supply these essential nutrients?

Essential Nutrient	Purpose of nutrient	Good Food Sources
Water	**Water** accounts for approximately ⅔ of one's total weight and is an essential part of all cells and fluids in the body.	All fluids we drink and from many foods.
Protein	**Proteins** are essential components of every cell in the body. They are involved in the growth, maintenance, and repair of all body tissues. During the digestive process proteins are broken down into smaller units, amino acids. Amino acids are the building blocks from which new proteins are made. Excess amino acids cannot be stored. To obtain the protein we need we should select foods regularly from a wide variety of food sources.	Meat, poultry, fish, dairy products, dried beans, peas and nuts, peanut butter, grains and cereals, eggs.
Carbohydrate	**Carbohydrates** are supplied by starches and sugars. Their primary function is to provide energy. Excess carbohydrates are converted into fat and stored in the body.	Breads, cereals, pastas, sugar, syrups, honey, fruits and vegetables (provide fiber, complex carbohydrates, sugars).
Fat	**Fats** provide a concentrated source of energy. They supply about 9 Calories per gram while proteins and carbohydrates supply about 4 Calories per gram. Certain fats are also excellent sources of the fat soluble vitamins A, D, and E. Most fats and oils, particularly vegetable oils, are excellent sources of essential fatty acids that are necessary for the maintenance of good health.	Milk, meats, margarine, butter, salad dressing, cooking fats and oils.

Vitamins	**Vitamins** are essential for proper growth, maintenance and repair. In their absence vitamin deficiencies will occur. Since vitamins cannot be made by the body, we generally depend on foods to supply our vitamin needs.	**Vitamin A**—liver, dark green and deep yellow vegetables, apricots, cantaloupe, butter, margarine, egg yolk, milk. **Thiamine**—pork, liver, whole grain or enriched breads and cereals, peas, beans and nuts. **Riboflavin**—milk, eggs, liver, leafy green vegetables, whole grain and enriched breads and cereals. **Niacin**—liver, fish, lean meat, whole grain or enriched breads and cereals, peanut butter, beans and nuts. **Ascorbic Acid (vitamin C)**—citrus fruits and juices, strawberries, cantaloupe, raw vegetables, tomatoes, broccoli, potatoes. **Vitamin D**—liver, foods fortified with vitamin D—such as milk.
Other vitamins: folic acid, pantothenic acid, vitamin B_6, vitamin B_{12}, vitamin E, vitamin K, biotin		These vitamins are found in foods similar to those in the above groups. Proper food selection will help insure the intake of adequate amounts of each.
Minerals	**Minerals** are essential components of bones, teeth, and blood and are necessary for the proper function of all body tissues. Like vitamins, we generally depend on foods to supply our mineral needs.	**Calcium**—milk, cheese, shellfish, egg yolk, leafy green vegetables. **Phosphorus**—meat, fish poultry, milk, cheese, eggs, whole grain or enriched cereals. **Iron**—meat, poultry, fish, liver, shellfish, egg yolk, dried beans, dark green leafy vegetables, dried fruit, whole grain or enriched breads and cereals. **Iodine**—iodized salt, seafood.
Other minerals: sodium, potassium, phosphorus, magnesium copper, zinc, manganese, chromium, selenium, molybdenum, chloride, fluoride		These minerals are found in foods similar to those in the above groups. Proper food selection will help insure the intake of adequate amounts of each.

The Food and Nutrition Board of the National Academy of Sciences, National Research Council (NAS-NRC) has published recommended dietary allowances (RDA) designed to assist in the maintenance of good nutrition (Recommended Dietary Allowances, Ninth Edition, 1980). These RDA values, which are quantitatively defined for individual essential nutrients, are adjusted for sex or age and apply to healthy persons living in the U.S. Special adjustment is made for pregnancy and lactation.

The Federal Food and Drug Administration has established U.S. Recommended Daily Allowances (U.S. RDA) as a basis for expressing nutrient composition on food labels. The U.S. RDA values basically were adapted from the Food and Nutrition Board's recommended dietary allowances, and the values for normal persons four years of age and older are tabulated below.

U.S. Recommended Daily Allowances (U.S. RDA)

Protein	65 grams (for the normal mixed protein diet)	Vitamin B_6	2.0 milligrams
Vitamin A	5,000 International Units	Folic Acid	0.4 milligrams
Vitamin C	60 milligrams	Vitamin B_{12}	6 micrograms
Thiamine	1.5 milligrams	Phosphorus	1.0 gram
Riboflavin	1.7 milligrams	Iodine	150 micrograms
Niacin	20 milligrams	Magnesium	400 milligrams
Calcium	1.0 gram	Zinc	15 milligrams
Iron	18 milligrams	Copper	2 milligrams
Vitamin D	400 International Units	Biotin	0.3 milligrams
Vitamin E	30 International Units	Pantothenic acid	10 milligrams

Nutritional composition of foods is now provided on many food labels or should be provided by food companies upon written request as percentage values of the U.S. RDA contained in a serving.

To illustrate how nutrition information appears on food labels, a sample is provided below. This sample label is representative of the format developed by the Division of Nutrition of the Food and Drug Administration.

NUTRITION INFORMATION
(PER SERVING)

SERVING SIZE = 1 CUP
SERVINGS PER CONTAINER = 2

CALORIES	35
PROTEIN	2 grams
CARBOHYDRATE	7 grams
FAT	0 grams
SODIUM	295 mg

PERCENTAGE OF U.S. RECOMMENDED DAILY ALLOWANCES (U.S. RDA)

PROTEIN	2
VITAMIN A	10
VITAMIN C	8
THIAMINE	2
RIBOFLAVIN	4
NIACIN	2
CALCIUM	6
IRON	10

What is a healthful/balanced diet?

A healthful/balanced diet is one that satisfies our individual nutrient needs within the framework of our particular life styles.

Taste, texture and appearance are important factors in our selection of many foods, but good nutrition is the primary benefit we derive from the foods we eat.

While we all require the same kinds of nutrients, we can meet our nutrient needs in different ways. Quite often there are significant differences in the eating patterns of individuals within the same family. Not everyone eats:

—the same number of meals per day.

—the same foods at each meal.

Variations in eating patterns are an accepted reality of modern life. Whether we eat three main meals per day or one main meal with 10 mini meals, the basic principle to apply is that *our daily food intake should provide all the nutrients we need for the maintenance of good health.* Snack foods and many pleasure foods always have been a part of the well-balanced diet that is responsive to an individual's nutrient needs and energy requirements.

The key in planning a healthful/balanced diet is to select food from a wide variety of sources. This enables us to meet the individual nutrient needs of our bodies in a manner most acceptable to our unique patterns of living. Naturally, unreasonable excesses of any single food should be avoided.

How can we meet our nutrient needs within the framework of our individual life styles?

Food groupings can assist you in planning a healthful/balanced diet that meets your daily nutrient needs within the framework of your individual eating patterns.

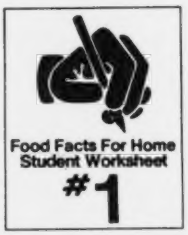
The most commonly accepted method for grouping foods is called the Daily Food Guide. It includes:

Food Group	Suggested Sources
Milk/cheese group	milk, cheese, ice cream, yogurt
Meat, poultry, fish and beans group	meat, fish, poultry, eggs or dry beans, or peas with nuts, peanuts, peanut butter as alternatives
Vegetables/fruit group	all fruits and vegetables
Bread/cereal group	enriched or whole grain cereals, breads, rice, spaghetti, cornmeal, grits, macaroni

Recommended servings per day for each of the categories within the Daily Food Guide are:

Food Groups	Teenage Girls and Boys
Milk group	4 or more glasses a day
Meat group	2 or more servings a day
Vegetable/fruit group	4 or more servings a day
Bread/cereal group	4 or more servings a day
Miscellaneous (Now referred to as "Fats/Sweets/Alcohol Group.")	"To round out meals and meet energy needs, almost everyone will use some foods not specified in the four groups . . . these often are ingredients in a recipe, or are added to other foods during preparation or at the table." (USDA) Such foods include many of our snacks as well as unenriched flour, sugars, butter, margarine, shortenings and salad and cooking oils.

Suggested Learning Activities



1. Have students complete the word scramble on Student Worksheet #1, "Facts About Food." Discuss the answers so that every student will be able to correct errors, if any.

   This sheet will be a handy reference about nutrition for students throughout the course.

2. Play "Password" using the names of nutrients. Divide the class into two teams. Each team selects a leader, the person who will give clues. One team member at a time works with the leader. A large index card with the name of a nutrient on it is flashed in front of the leader who then gives a series of single word clues to his partner until the nutrient is identified. For example, the index card may say "calcium." The leader says to his partner, "white . . . milk . . . phosphorus . . . strong . . . teeth;" after every clue the partner tries to guess the right answer.

   After a nutrient is identified another team member works with the leader. The team that identifies the most nutrients in 5 minutes is the winner. If someone gives a false clue, the other team is the automatic winner.

3. Assign a student each week to look for nutrition information news and present a 5 minute "news summary" at the beginning of the following week. This exercise alerts students to industry and government efforts to assure a healthy, steady supply of food.

   Post clippings about nutrition from newspapers and magazines on bulletin boards.

4. Have students develop a survey form to ask consumers what they know about nutrition. Summarize results. If appropriate, write up the results of the study and submit to a local newspaper or the school paper.

5. Sum up facts about key nutrients using Master Visual #1, "Knowing About Nutrients." Discuss usefulness of each nutrient, relationship to other nutrients, RDA levels. Explain how calories relate to nutrients.

6. Have students record what they eat for a complete week. Review their lists. Were their meals generally well-balanced? How many: ate only one meal a day? ate more snack foods than anything else? had a good variety of flavors, textures and types of food?

   Later students will have experience planning menus but, at this point, a weekly food intake survey is a good way to build awareness of eating patterns.

7. Nutritional information on foods is available from manufacturers. Assign class representatives to write to different food companies (one letter per company) and request information on the nutritional composition of their products. We would welcome a student writing to us:

   The Procter & Gamble Company
   c/o Educational Services
   P.O. Box 14009
   Cincinnati, Ohio 45214

Module II. Meal Management

Objectives: The student will be able to:

- Identify personal values related to food selection
- Relate time, money and energy resources in planning attractive and nutritious family meals

1. Planning Meals

a. Choose Foods For Good Nutrition
   (1) identify good sources of key nutrients
   (2) consider the nutritional needs of all family members

b. Factors That Affect Food Choices
   (1) preferences
      —flavor and texture
      —meal size and frequency
      —interest in new foods
   (2) influences
      —ethnic or cultural heritage
      —religious traditions
      —tastes of family members or friends
      —awareness of new foods
      —who prepares/where/when meal is served
   (3) resources
      —shopping and preparation time
      —money
      —skills and/or energy for preparation

c. Combine Foods That Work Well Together
   (1) provide a complete and steady supply of all key nutrients
   (2) blend flavors, colors, shapes, degree of crispness and texture
   (3) include foods for flavor
   (4) start with a main dish, add appetizers, vegetables, beverages and desserts that compliment it

Parts of a Meal	Examples	When Served
Appetizer	fruit or vegetable juice, raw fruits or vegetables, soup, small servings of chopped liver, seafood, etc.	as soon as people are seated at the table; before the main course
Main Course	meat, seafood or poultry which may be roasted, stewed, fried or broiled; may be a salad, an omelet, pancakes or a casserole	after appetizer OR if no appetizer is served as soon as people are seated at the table
Accompaniments	vegetables, breads or rolls, sauces or relishes	at the same time as the main course
Salad	tossed vegetable or fruit, jellied vegetable or fruit	with or after appetizer OR with main course OR after main course
Dessert	cakes, cookies, pies, puddings, fruit	after everyone has finished the main course and the dishes are removed from the table

2. Shopping For Food

a. Plan Ahead
   (1) know when fruits, vegetables and meats are in season: flavor is most full; price is most reasonable

(2) follow news stories that relate to food supply
—availability and price might be dependent on them (e.g., weather, strikes)
—you may have to consider alternative foods
For example, severe flooding in the lettuce growing section of the country may cut off lettuce supplies, raise prices dramatically and make escarole or another green a good choice for salads until the crisis passes.

(3) read grocery special ads each week
—look for bargains among your favorite brands
—consider using a bargain food as a basis for menu planning

(4) make a weekly menu plan
—include meals using leftovers

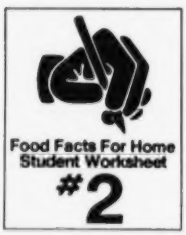
(5) make a shopping list and use it

b. Buy What You Can Use or Store

Suggested Learning Activities

1. Write the names of some main dishes on index cards. For example, tuna-noodle casserole, turkey croquettes, deep fried fish fillets, pan fried chicken. Have students select a card at random and plan a suitable meal around the food listed. On some cards, include an occasion such as "roast turkey for a graduation dance buffet."

   Have students explain each food included in the meal. Is it in season? Is it a special bargain? What key nutrients does it offer? How does the flavor, color, texture and shape relate to the other foods in the meal?



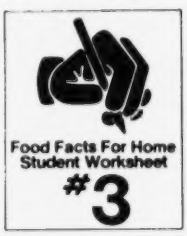
2. Have students complete Student Worksheet #2, "What Foods Do You Like and Why?" How many foods appear in more than one column? Which column did the students find most difficult to complete? Why?

   Did they name a good variety of fruits, vegetables, meats, etc.?

   Divide the class into groups of 5. Ask them to arrive at one list of breakfast, lunch, dinner and snack favorites by combining their personal lists and voting until they have narrowed down all the items mentioned to 5 favorites in each category.

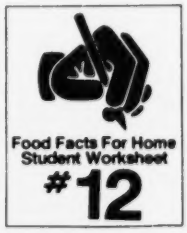
   How many groups had difficulty deciding on a limited number of favorites? What does this have to say about the importance of personal opinion in menu planning? What are the implications of food favorites in maintaining good health through a well-balanced diet?

   How are food favorites learned? Can they be changed? Should they be changed? When?



3. Have students complete Student Worksheet #3, "Bargains, To Buy Or Not To Buy." How many were equally alert to food bargains in all categories of food such as vegetables, meat, fish, etc.? How many appeared to concentrate their bargain hunting efforts in one store? How realistic is it to travel from store to store in search of bargains? What is the cost in terms of time, money and energy? When is it worthwhile?

4. Invite a local store manager to meet with the class. Ask him to review sanitation and packaging standards by explaining how foods are rotated or sold to be certain of freshness, why certain items are placed near the door or cash register, etc. At the same time, ask him to comment on part-time and full-time employment opportunities in his store and in the supermarket industry.



5. Refer to the "Food Safety" Wall Chart and have students complete, then discuss, Student Worksheet #12, "What Do You Know About Food Safety?"

Module III. Starting to Prepare Food

Objectives: The student will be able to:

- Define the meaning of recipe terms and abbreviations and be able to follow cooking instructions
- Follow procedures for various cooking methods and recognize when each method is suitable
- Identify basic ingredients in two kinds of cooking—baking and frying—and be able to define their functions
- Recognize that safety should be a part of every kitchen routine

1. Recipes

a. The Formulas and Instructions for Preparing Foods

b. Sources Include:
   (1) labels or packages
   (2) newspapers or magazines
   (3) brochures
   (4) cookbooks
   (5) friends

c. Before Using a Recipe, Read Through It To Be Sure All Ingredients and Equipment Are Available

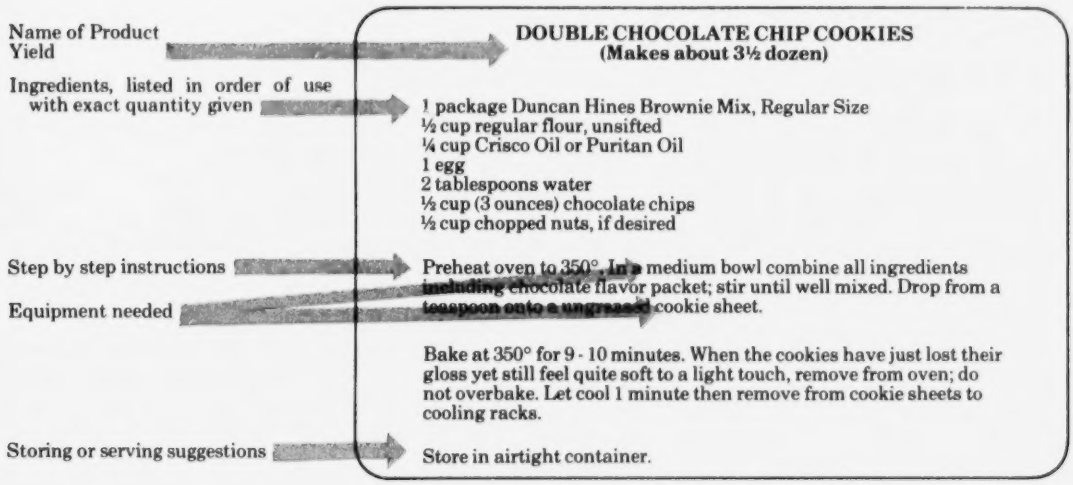
d. Be Sure You Understand All the Cooking Terms and Directions

e. Allow Enough Time To Prepare the Recipe Item

f. Follow Instructions Exactly
   (1) measure accurately
   (2) complete each step as recipe describes

g. Clean Up When Finished

h. General Format and Information Provided


Name of Product
Yield
DOUBLE CHOCOLATE CHIP COOKIES
(Makes about 3½ dozen)
Ingredients, listed in order of use with exact quantity given
1 package Duncan Hines Brownie Mix, Regular Size
½ cup regular flour, unsifted
¼ cup Crisco Oil or Puritan Oil
1 egg
2 tablespoons water
½ cup (3 ounces) chocolate chips
½ cup chopped nuts, if desired
Step by step instructions
Preheat oven to 350°. In a medium bowl combine all ingredients including chocolate flavor packet; stir until well mixed. Drop from a
Equipment needed
teaspoon onto a ungreased cookie sheet.
Bake at 350° for 9 - 10 minutes. When the cookies have just lost their gloss yet still feel quite soft to a light touch, remove from oven; do not overbake. Let cool 1 minute then remove from cookie sheets to cooling racks.
Storing or serving suggestions
Store in airtight container.

2. Abbreviations

a. Standard Symbols for Commonly Used Measurement Terms

Customary		Metric (SI)	
Terms	**Abbreviations**	**Terms**	**Abbreviations**
		Volume	
teaspoon	tsp. or t.	liter	l
tablespoon	tbsp. or T.	milliliter	ml
cup	c.	*Mass (Weight)*	
pint	pt.	kilogram	kg
quart	qt.	gram	g
gallon	gal.	*Length*	
ounce	oz.	meter	m
pound	lb.	millimeter	mm
		centimeter	cm

3. Volume Conversion Table

Unit	Approximate replacement in U.S. customary units
1 milliliter (1 ml)	0.20 teaspoon
2 milliliters (2 ml)	0.40 teaspoon
5 milliliters (5 ml)	1.01 teaspoon
15 milliliters (15 ml)	3.04 teaspoons 1.01 tablespoons
25 milliliters (25 ml)	1.69 tablespoons
50 milliliters (50 ml)	3.38 tablespoons
60 milliliters (60 ml)	0.25 cup
75 milliliters (75 ml)	0.32 cup
100 milliliters (100 ml)	0.42 cup
125 milliliters (125 ml)	0.53 cup
250 milliliters (250 ml)	1.06 cups
500 milliliters (500 ml)	2.11 cups
1000 milliliters (1000 ml)	4.23 cups or 1.06 quarts

One committee of the American National Standards Institute (ANSI) sponsored by the American Home Economics Association was responsible for establishing the standards for metric measures in home food preparation. Measurements will continue to be based on volume [not mass (weight)], the base unit being the liter (l).

Liquid Measures

1000 ml (1 liter)	subdivided every 50 ml
500 ml	subdivided every 50 ml
250 ml	subdivided every 25 ml

Dry Measures	Small Measures
500 ml	25 ml
250 ml	15 ml
125 ml	5 ml
50 ml	2 ml
	1 ml

Source: For a Handbook for Metric Usage send $6.00 to the American Home Economics Association—2010 Massachusetts Avenue N.W., Washington, D.C. 20036. This Handbook contains guidelines for learning, teaching and developing materials for use with the metric system with regard to all phases of home economics.

4. Cooking Terms

a. Standard Words Used in Recipes Which Give Cooking Directions

add alternately	when a recipe tells you to "add dry and liquid ingredients alternately:" place ⅓ of the combined dry ingredients in a bowl, add ½ of the liquids, stir lightly; add another ⅓ of the dry ingredients, stir lightly; add the remaining liquids, stir lightly; add the last of the dry ingredients, stir to blend well
baste	to keep meat moist during cooking by spooning or pouring melted fat, meat drippings, fruit juice or sauce over it
beat	to make mixture smooth with a mixer, egg beater or spoon; the motion used lifts the mixture over and over, adding air and making it smooth
blend	to combine two or more ingredients until smooth and of uniform consistency
bread	to coat with bread crumbs, or mixture of beaten eggs and milk, then crumbs
chop	to cut into small pieces with a knife or cleaver
cream	to beat a mixture until light and fluffy
cube	to cut into small even pieces
cut in	to distribute shortening in dry ingredients by chopping with knives or pastry blender until finely divided
dice	to cut into small even pieces, about ¼" in size
dredge	to dip or sprinkle with flour; technique used to coat food before frying
dry ingredients	ingredients in a recipe that are dry or non-liquid such as baking powder, baking soda, flour, salt, sugar or spices
fold	to add new ingredients to a mixture. Cut down through mixture with spoon or rubber spatula; go across bottom of bowl, up and over, close to surface
marinate	to let stand in a mixture of oil and vinegar or lemon juice to add flavor and soften tissue; marinating helps tenderize certain cuts of meat
mix	to combine ingredients until evenly distributed; not as vigorous as beating
parboil	to partially cook in water; for example, potatoes might be parboiled before adding them to a roasting pan for browning
pastry	baked product made with flour, shortening or oil, and salt; used for pie or tart shells
sauté	to brown or cook in a small amount of fat or oil
scald	to heat milk just below the boiling point so that a film forms over the top of the milk and tiny bubbles form around the edge of the pan
sear	to brown quickly; to seal the outer surface of meat in order to prevent excess loss of moisture during cooking; for example, to sear a pot roast
shortening	a semi-solid or solid fat which can be used for cooking or baking
simmer	to cook in a liquid just below the boiling point; bubbles are lazy and form slowly, not as rapidly as in boiling
sift	to pass dry ingredients through a mesh or screen to add air and reduce the effects of packing during storage; sifting allows you to measure accurately
stir	to mix ingredients with a circular motion until well blended or of uniform consistency
whip	to beat rapidly to incorporate air and increase volume

5. Cooking Methods

a. Each Method Produces a Slightly Different Degree of Brownness, Moisture, Texture or Flavor

b. Choose the Method That Produces Results Which Compliment the Type of Food/Cut of Meat You Are Preparing

(1) direct heat—concentrated on one surface of food
—quick cooking method
—ideal for tender types of meat, vegetables

(2) indirect heat—surrounds food
—slower cooking method
—ideal for products that need to cook a long time to develop flavor

(3) moist heat—liquid added during cooking
—may help tenderize or add flavor

(4) dry heat—no moisture added
—suitable for foods which contain sufficient moisture

Method	Type of Heat	Equipment	Procedure	Uses
Bake	indirect, dry	oven or oven-type appliance	place food in/on container, in oven at recommended temperature	cakes, cookies, breads, pastry, quick breads
Roast	indirect, dry	oven or oven-type appliance	same technique as above, except this term used for meats or vegetables	meats and vegetables such as potatoes, corn
Boil	indirect, moist	uncovered or covered utensil	place food in container; cover with liquid, usually water; heat until rolling bubbles form	vegetables such as potatoes; to start cooking certain less tender cuts of meat
Simmer	indirect, moist	uncovered or covered utensil	same technique as above, except bubbles are lazy and form slowly; not as quick a cooking method as boiling; recommended for long-term cooking	after meat or soup has reached the boiling point heat is reduced; complete cooking at simmer
Slow Cooking	indirect, moist	electric slow cooker	place all ingredients in pot; allow to cook slowly	soups, roasts, stews

Broil	direct, dry	rack or spit	place food near heat source (broiler flame or heated rod); allow to cook until done on one side, then turn to complete cooking; or, allow to rotate on spit to cook	steaks, chops, chicken, seafood
Pan broil	direct, dry	fry pan or electric skillet	place food in fry pan; heat; allow to cook in own juices	bacon, sausage, similar meats containing a good amount of fat
Stir Fry	direct, dry	fry pan, electric skillet or Wok	place food in fry pan with fat or a little moisture	thinly cut beef, chicken, particularly Chinese food
Barbecue	direct, use a sauce for moisture	rack or spit	same technique as above except food is basted frequently with a seasoned sauce or liquid	chicken, beef, lamb, other meat
Fry				
Pan fry/saute' (enough fat to cover bottom of pan)	direct, uses fat as moisture	fry pan or electric skillet	heat shortening or oil; add food; brown; turn to cook other side; drain; serve immediately	steaks, cutlets, seafood, chicken, vegetables, such as onions
Shallow fry (enough fat to partially submerge food, ½-1")	direct, uses fat as moisture	fry pan or electric skillet	same technique as above	chicken, potatoes, breaded fish, onion rings
Deep fry (enough fat to submerge food)	indirect, uses fat as moisture and heat source for cooking	medium/heavy saucepan approximately 8–10" across by 4–6" deep or a deep fryer	heat shortening or oil; add food; cook until brown; drain; serve immediately	seafood, chicken, vegetables such as potatoes, onion rings, eggplant, fritters or doughnuts

6. Some Basic Ingredients in Two Kinds of Cooking–Baking and Frying

Ingredient	Special Function . . . In Baking	In Frying	How to Measure
Eggs	add flavor; yolk helps in emulsifying oil and liquid elements of batter; provide moisture and help bind other ingredients together; aid in browning	help coating to adhere to surface of food for proper frying	unless another size is designated in the recipe, use large eggs for cooking
Fats or Oils	tenderize; add moisture; maintain freshness and extend keeping quality; shortening is a carrier of emulsifiers which help the oil and water in batter to combine to make a smooth, creamy solution; help produce a tender and/or flaky product	prevent foods from sticking; help transfer heat; add flavor, moisture and a degree of brownness	*solid fats*–use nested cups–scoop fat from container with scraper; press into cup firmly; level off top with spatula, or, pour cold water into a cup up to the measure which will equal one cup when the desired amount of shortening is added. Drain off the water. *liquids*–pour into a graduated measuring cup
Flavoring • salt • vanilla, almond and other extracts for baked goods • herbs and other spices for fried foods	enhances natural flavors; adds new flavors	enhances natural flavors; adds new flavors	*solids or granules*–scoop into proper size measuring spoon; level off with a spatula *liquids*–pour into proper measuring spoon

Flour • regular or all-purpose enriched flour • cake flour • self-rising • presifted • whole grain	provides framework or structure; starch in flour absorbs and holds liquid; adds flavor	helps thicken products because starch particles absorb and hold liquid and then swell; used to coat food before frying; aids in developing a crust	if necessary, sift by passing flour through a sieve or fine mesh to add air which was forced out as flour settled or packed during storage; sifting insures accurate measurements; next, scoop gently into nested cups; level off top with a spatula
Leavening Agents • baking powder • baking soda	react with moisture or with sweetening agents to produce carbon dioxide which causes small bubbles to form within the product and make it rise or increase in volume	same function as in baking for specialty fried items such as doughnuts	scoop with the correct size measuring spoon; level off top with spatula
Liquids • water • milk—whole, evaporated, skim, dried or condensed • juices—fruit, vegetable or meat	add moisture; help ingredients to react with each other; bind ingredients together	used to help coat foods for frying	pour into a graduated measuring cup; read at eye level; scrape cup after pouring with a rubber spatula
Sweetening • granulated sugar, white • brown sugar, light or dark • confectioners or powdered sugar • corn syrup • honey • molasses	adds flavor; provides tenderness, crispness and brownness as it melts during cooking to carmelize	none	*granulated sugar*—spoon into a nested measuring cup; level off with a spatula *brown sugar*—pack firmly in a nested measuring cup; level with a spatula *syrups* (liquids)—pour into a graduated measuring cup

7. Characteristics of Some Ingredients—Fats and Oils

Types:	Shortening	Cooking and Salad Oil	Margarine	Lard	Butter
Ingredients	all-vegetable oils or a combination of vegetable oils and animal fats	processed vegetable oils	combination of vegetable fats, milk solids, water, salt	rendered pork fat	combination of butterfat, water, milk solids, salt
Processing	partially hydrogenated; preservatives, emulsifiers and anti-foam agents added	preservatives, anti-foam agents, added	fats hydrogenated and then combined with other ingredients	preservatives added	butterfat churned
Consistency	semi-solid or solid	liquid	solid	solid	solid
Flavor	none or butter flavored	leading brands are bland; others may have a characteristic flavor of the oil source or may have an added flavoring	flavoring added	natural flavor of fat	characteristic flavor
Color	generally white; some have yellow coloring added	generally a clear color; some types have a golden yellow color which may be a natural or added coloring	yellow coloring added	creamy color	yellow
Cooking Uses	• frying • baking	• salad preparation • frying • baking	• baking • frying • melted over food as a flavoring	• frying • baking	• baking • melted over food as a flavoring

Sources

1. Vegetable sources of fats and oils
   a. soybean, cottonseed, corn, olive, peanut, safflower seed, palm fruit, sunflower seed
   b. produce shortening and have better flavor, stability and uniform quality, e.g., Crisco Shortening, Butter Flavor Crisco Shortening, Crisco Oil, Puritan Oil
2. Animal sources
   a. butterfat (milk from cows)
   b. rendered pork (lard)
   c. rendered beef (tallow)

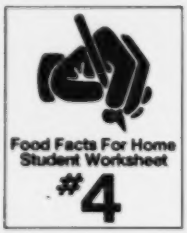
8. Equipment

a. Store Near Work Centers
b. Check Recipe To Be Sure You Have All Necessary Equipment for Measuring, Mixing, Baking, Cooking.

9. Safety Considerations

a. Keep Equipment in Good Working Order
b. Use Equipment As It Is Designed To Be Used
(1) knives and sharp objects
–keep well sharpened
–store away from work surfaces, in a manner so they must be picked up by the handle
–always pay attention when cutting
(2) hot pots, pans and racks
–keep handles facing inward while cooking to prevent accidental tipping
–be certain handles are not directly over another burner
–check to be certain handles are secure
–remove lids away from the face to prevent steam from scalding
–use protective mitts or pot holders
–place items well away from edges of counters
(3) electrical outlets or cords
–keep away from water, sharp objects or moving parts of equipment
–don't use if the outer covering of cord is split or frayed, prongs are missing or damaged, wall outlet feels warm to the touch
–check for UL seal of approval
–disconnect before cleaning
–avoid tragedy: Never stick a knife or other metal object into an electric toaster or other appliance.
(4) keep floors and counter space clean
(5) prepare for an emergency
–keep a container of salt or an extinguisher near range to put out fires
–know how to shut off gas, electricity and water
–post emergency telephone numbers for fire department, emergency or ambulance squad and doctor
–know the quickest exit routes for an emergency; drill other family members for emergency exits
(6) keep a well stocked first aid kit handy
–fire blanket
–adhesive tape, gauze pads and bandages
–alcohol, ointment, antiseptic creams or mercurochrome

Suggested Learning Activities

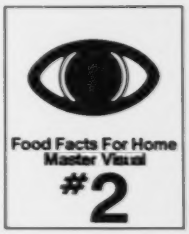


1. Have students complete Student Worksheet #4, "What Do You Know About Cooking Methods and Measurements?" When complete, this crossword puzzle will be an excellent resource sheet about cooking procedures.

2. Divide class into two teams. One member of each team competes with one member of the opposite team; each gets a turn asking for definitions of terms used in food preparation.
   Team Member A—gives a measurement, or cooking term, etc., for example, says "3 teaspoons" or "dice."
   Team Member B—must give the equivalent (1 tablespoon) or explain the term (cut into small pieces). If he/she does so correctly, Team B gets a point. If team member B cannot answer the question, team A gets the point.
   As soon as a team member gives an incorrect answer, another teammate takes his/her place in the game. Winning team has most points.

3. Discuss direct and indirect methods of cooking. Which method is fastest? Which helps tenderize? Discuss advantages of moist and dry methods of cooking. What types of "moisture" can be used for cooking? For example, oil, water, meat juices, fruit juices, wine. Cite recipes that use these ingredients.

4. Set up a display of various fats and oils and allow students to taste test them either by taking a small dab on the tip of their finger or by pouring over a lettuce leaf. Have students rate various products. Which is most light? Which has the most distinctive flavor? Which has the most unusual color or odor? Which product seems the most versatile? Why?



5. Review the facts about ingredients using Master Visual #2. "Some Basic Ingredients."

6. Make flash cards with pictures of various food preparation ingredients such as self-rising flour, vanilla, cooking oil, etc. Have students name one product that could be made using each ingredient.

   Reinforce awareness by asking probing questions such as, what would happen if . . .

   I switched self-rising flour for regular flour in a recipe and added all the other original ingredients?

   I used honey instead of sugar in a cake without decreasing the amount of water or liquid?

   I used condensed milk instead of evaporated milk in a recipe without decreasing the amount of sugar?

   I used brown sugar instead of white sugar in a recipe for brownies?

   I used a glass measuring cup for measuring sugar?

   I put a tbsp. of vanilla into a cake instead of a tsp.?

7. Have students review cookbooks to see what basic information is available about abbreviations, equivalents, pan sizes, substitute ingredients, etc. Most will be surprised that cookbooks have entire chapters about such important background information.

8. Deliberately set some safety hazards in one of the kitchen units and give a team of students 5 minutes to locate and correct every one. You might want to arrange this exercise like a game, having one team set up the hazards and the other correcting them. For example, a pot handle extending over the edge of a range, a dented saucepan, an electric cord dangerously close to the range unit, etc. (Use caution to avoid possible injury.)

9. Invite a local member of the Red Cross into class to demonstrate basic first aid skills for the kitchen.

Module IV. Baking Skills

Objective: The student will be able to:

- Carry out the basic skills involved in baking pies, cakes, quick breads and similar products
- Evaluate baked products for appearance and eating quality

Pastry

—a combination of flour, shortening or oil, water, salt used for pie shells, tarts, casserole toppings

1. Pastry Making Methods

a. Standard Method (cut and sprinkle)
   (1) cut fat into flour with a pastry blender or two knives
   (2) sprinkle water on top of fat/flour crumbs
b. Paste Method (cut and blend)
   (1) cut fat into flour with a pastry blender or two knives
   (2) make a paste with a little mixture of flour and water
   (3) mix paste with rest of flour mixture
c. Oil Method (mix and roll)
   (1) mix oil (e.g., Crisco Oil or Puritan Oil) and water with flour and salt

2. Whatever Method You Choose . . .

a. Once pastry is mixed, form it into a small ball containing enough dough to make one crust; it may be wrapped in foil, waxed paper, or plastic wrap, and stored overnight in the refrigerator or rolled immediately
b. To roll, place pastry ball on a floured surface; use a floured rolling pin or knitted rolling pin cover; start rolling from the center out using short, light strokes; lift rolling pin just before you get to the edge
c. If dough splits, patch it by slightly wetting and pressing edges together; you can reroll dough if necessary
d. When dough is rolled to size, place in pie pan gently without stretching; stretched dough will shrink during baking
e. Bake pastry shell before or after filling, according to the recipe directions

3. Pastry Rating Scale

	Possible Points	Your Score
Appearance		
Uniform brown crust, attractive finished edges	15	
Medium thin and crisp crust	10	
Eating Quality		
Tender, flaky	60	
Bland flavor	15	
TOTAL SCORE	100	

If this happens with a tested recipe:	It may be caused by this:	Try this:
Dough dry, crumbly hard to work with	1. Insufficient blending	Mix ingredients more thoroughly.
	2. Not enough water	Measure water at eye level.
	3. Failure to sift flour	Sift flour just before measuring.
Pastry tough, leathery	1. Mis-measured shortening, oil, flour or water	Be sure to sift flour before measuring. Measure all ingredients carefully. When rolling out, use very little flour on board or pastry cloth.
	2. Handled dough too long	Work dough properly for the appropriate length of time.
Shrinking or buckling of pastry	1. Pastry stretched during fitting into pie pan	Use large enough recipe to fit pie pan without stretching. Don't stretch dough when fitting to pie plate—ease it in.
	2. Pastry shell not adequately pricked on sides and bottom before baking.	Prick pastry generously over bottom and sides of pie plate. Peek after shell has baked about 5 minutes and prick any "blisters."

Cakes

—a combination of flour, sugar, shortening or oil, liquid, eggs, leavening agents, flavorings, and salt.

1. Cake Making Methods

a. Creaming Method
   (1) combine shortening, sugar and egg until light and fluffy
   (2) alternately add liquid and dry ingredients

b. Quick Method
   (1) mix shortening, sugar and other dry ingredients with part of the total liquid
   (2) add egg, remaining liquid, mix well

c. Cake Mix Method
   (1) follow package directions, e.g., Duncan Hines Cake Mixes

2. Whatever Method You Choose . . .

a. When batter is completely blended, fill the exact size and shape cake pan(s) recommended in the recipe half full
b. Place cake pan(s) in preheated oven 1″ apart and 1″ away from oven walls during baking
c. Check accuracy of oven thermometer from time to time

3. Cake Rating Scale

Appearance	**Possible Points**	**Your Score**
Baked layers about the same height as pan	15	
Slightly rounded top, uniform in color, golden brown	10	
Crumb, a uniform fine structure, thin cell walls	10	
Eating Quality		
Tender	10	
Light, velvety or feathery texture	15	
Moist	20	
Good blend of ingredients for a pleasant flavor	20	
TOTAL SCORE	100	

If this happens with a tested recipe:	It may be caused by this:	Try this:
Cake cracks or humps	1. Baking at too high temperature	Reduce heat. Have oven thermostat checked for accuracy.
Cake falls	1. Insufficient baking	Test for doneness—cake shrinks away from sides of pan. No imprint left when touched lightly on top. Use ingredients specified in tested recipe.
	2. Using self-rising instead of regular flour without reducing the leavening.	
	3. Oven temperature too low	Check oven thermometer or thermostat for accuracy.
	4. Too much liquid	Measure accurately.
Cake runs over edge of pan	1. Too much batter for pan	Use proper pan size. If smaller pans are used, fill them half full and bake remaining batter as cupcakes.
Cake breaks	1. Improper pan preparation	Brush pan generously with shortening, then dust lightly with flour.
	2. Improper cooling	Let cake cool in pan or rack about 15 minutes, top crust up. Loosen cake from sides of pan. Place rack on cake and invert both. Remove pan and turn cake top side up immediately. Finish cooling.
Cake lopsided	1. Oven not level	Check to see if oven is level by putting a pan of water in oven.
	2. Oven heat uneven	Have oven adjusted
	3. Cake pans touching	Keep pans 1" apart and 1" from oven walls.
Cake doesn't rise	1. Not enough leavening	Baking powder may lose its leavening action if it becomes damp. Test by placing a spoonful of it in cold water. It should bubble or foam immediately.

4. Frosting Cakes

a. Quick Creamy Frosting
   (1) doesn't require cooking
   (2) blend shortening, butter (or butter flavor shortening) or margarine with confectioners' sugar; add flavoring and liquid

b. Broiled-on Topping
   (1) mixture of sugar and fat with flavorings and sometimes chopped fruit or nuts
   (2) spread mixture on cake when it comes from the oven, then lightly brown under a broiler

c. Boiled or Fluffy Frosting
   (1) a combination of cooked, candy-like syrup poured over beaten egg whites, then beaten until stiff
   (2) does not contain shortening or butter

d. Ready-to-Serve Frosting, e.g., Duncan Hines
   (1) doesn't require mixing
   (2) available in assortment of flavors
   (3) can be used to make decorator frosting
      —combine 2/3 cup of Duncan Hines Ready-to-Serve Frosting with 1/3 cup confectioners' sugar.
      —if consistency is too thin, add extra sugar; if too thick, add extra frosting

5. Steps in Frosting a Cake

a. Brush any loose crumbs from cake

b. Place one layer of cake on a plate, top side down; spread frosting to edges with spatula

c. Place second layer over this, top side up; bottoms of layers should be together

d. Frost sides of cake first, using up and down strokes; avoid touching the bare cake with the spatula; instead, spread a thick layer of frosting onto the cake with the spatula

e. Frost top last; make peaks and swirls as you like; decorate with colored sugar crystals or another type of frosting

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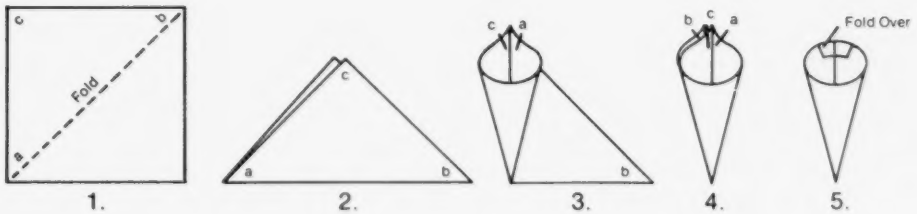
Decorator's Frosting Bag

Instructions: Use heavy white paper (freezer wrap works well); cut into a square—about 16-inches. Fold on the diagonal as shown and form cone as diagramed. Make small folds as shown in Figure 5 to secure corners.

Fill frosting bag no more than half full of frosting and fold in top securely. Hold top firmly when squeezing bag. Cut tip of cone as shown below for different patterns. Be sure to start with small cuts and enlarge as desired.

Extra heavy plastic bags can be used by clipping a corner, and decorating tips can be made from the corner of a heavy envelope.



1. 2. 3. 4. 5.

Patterns for Cone Tips

Quick Breads

—batter or dough must be mixed quickly and placed in a preheated oven so fast-rising leavening can help product increase in volume in a matter of minutes

1. Types of Quick Breads

a. Soft Dough, for example biscuits
b. Drop Batters, for example cornbread
c. Pour Batters, for example pancakes, waffles

2. Method for Making Soft Dough Quick Breads

a. Example: Biscuits
   (1) cut shortening into dry ingredients
   (2) add egg and liquids, mix lightly
   (3) knead to develop layers in the dough
   (4) roll to about ½" thick; cut with a biscuit cutter or knife
   (5) place on a lightly greased baking sheet
   (6) bake in a preheated oven as recipe directs

3. Soft Dough Quick Bread Rating Scale

Appearance	Possible Points	Your Score
Even size	10	
Smooth, golden top	10	
Top crust tender	5	
Flaky, slightly moist texture	30	
Eating Quality		
Creamy, light, tender crumb	15	
Fine grain	10	
Mild flavor, not bitter	20	
TOTAL SCORE	100	

4. Method For Making Drop Batter Quick Breads

a. Example: Cornbread
   (1) measure all dry ingredients into a bowl and mix thoroughly
   (2) combine liquid ingredients in a large cup or container; add all together to dry ingredients; stir lightly, just enough to moisten the dry ingredients; batter should be slightly lumpy, overbeating causes tunnels or poorly finished product
   (3) spoon batter into lightly greased pan and bake in a preheated oven

5. Drop Batter Quick Bread Rating Scale

	Possible Points	Your Score
Appearance		
Top pebbly looking	25	
Surface even shaped, slightly mounded	25	
Inside even grained, no tunnels	25	
Eating Quality		
Light	5	
Slightly moist, tender crumbs	10	
Mild flavor	10	
TOTAL SCORE	100	

6. Method for Making Pour Batter Quick Breads

a. Example: Popovers, Pancakes, Waffles
   (1) all dry ingredients are measured into a bowl and mixed thoroughly
   (2) then liquids and melted shortening, plus egg, are added and stirred just enough to moisten dry ingredients
   (3) batter poured into popover pans, waffle iron or onto pancake griddle as recipe directs

Suggested Learning Activities

1. Use Master Visual #3, "Planning on Cake," to investigate the decision-making factors involved in planning to buy and serve, or bake and serve cake.

   Below are several situations which can be used to focus the discussion. Write in details below the words "What Cake to Make?"

   What factors contributed to your decision (convenience, cost, taste, ability to be creative, etc.). Record answers with a wax based pencil on the transparency.

   Determine the cost per serving of: a.) making a cake from scratch; b.) making a cake from a mix; c.) buying a cake. (Consider the time, money, results.)

   - cub scout group is meeting at your house; there are 21 boys, you work in an office besides raising your 4 children and taking care of your home

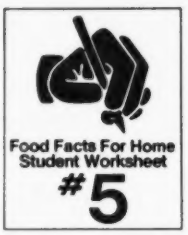
     (hint: in this case, it might be a good learning experience to have the cub scouts make their own cake following a recipe or using a mix)

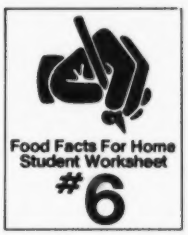
   - the family is going on a three day camping trip and you'd like to take along a special dessert

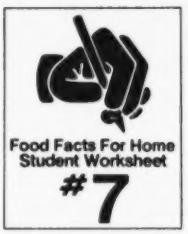
     (hint: you'd have to plan on a hearty cake such as a pound cake or loaf cake which would not require extra-delicate handling)

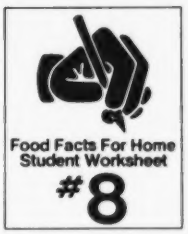
   - your parents are having a 30th wedding anniversary party and inviting all their friends; you've offered to make the foods for the party

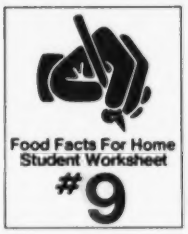
     (hint: since this is a special occasion and there will be many people, a person who decides to make a cake should probably be quite skilled; in addition, a large cake might require a special baking pan or a bakery size oven)











2. **Divide class into groups to make pastry, cakes, biscuits, and cornbread using the recipes on Student Worksheet #5. Allow each group to rate their products using student worksheet #6, 7, 8, 9, "How Would You Rate Your Pastry, Cake, Biscuits, Cornbread?" After each group has completed one rating sheet, compare results.**

   Depending on your students, you may want to allow them to complete a recipe first and then demonstrate basic techniques.

3. Invite a local baker into class to demonstrate simple but creative ways to decorate a cake.

   Sponsor a cake decorating contest. Give awards in categories such as Funniest, Prettiest, Most Elaborate, Simplest but Most Effective, Most Politically Persuasive. Your students can help think up zany categories and publicize the event.

   Present winners with blue ribbons, a box of cake mix, a paperback cookbook or some other inexpensive prize.

Module V. Frying Skills

Objectives: The student will be able to:

- Demonstrate the basic skills involved in pan frying, shallow frying, deep frying
- Evaluate prepared foods for appearance and eating quality

1. Frying

a. Cooking Food in Heated Fat

b. Principles of Frying

(1) the larger the pan, the more fat required for any type of frying
(2) lean foods such as liver need more frying fat than foods which have their own natural fats such as pork
(3) coated foods need more fat than uncoated ones to provide more rapid heat transfer necessary to bind coating to food
(4) frying frozen foods while frozen saves time and produces a product that is crisp on the outside and nicely cooked on the inside
(5) straining the fat after frying to remove food particles results in a better end product

2. Steps to Follow in Frying

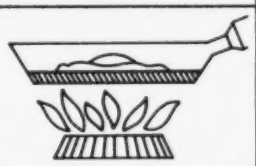
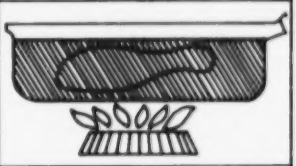
a. Choose the Right Shortening or Oil

(1) fresh
(2) flavorless and odorless or butter flavored
(3) reusable, keeps well for reuse in deep frying
(4) all-purpose
(5) economical
(6) high in smoke point

b. Before Frying, Coat Foods to Form a Tasty Crust

(1) foods such as potatoes or doughnuts form a crisp, crunchy crust during frying and do not need a coating
(2) moist or porous foods such as onions or croquettes should be coated
(3) coating can give extra flavor to items such as chicken or cutlets
(4) typical coating methods
–dip dry foods in milk or water, coat with flour, cracker crumbs or cereal flakes
–dip dry foods in egg beaten with a little water or milk, coat with flour or crumbs
–dip dry food in batter

3. Kinds of Frying

Name of Technique	Pan Frying or Sautéing	Shallow Frying	Deep Frying
Illustration			
Amount of Shortening Used	enough to cover bottom of fry pan; at least ⅓ cup for a 10″ skillet	enough to partially submerge food; ½–1″ of melted shortening or oil	enough to fill a saucepan 4–6″ deep half full, or a deep fryer within ½″ of the fill mark
Foods Typically Prepared This Way	lean, tender meats such as liver, veal, steak, chicken; tender vegetables such as onions; dessert pancakes	shrimp, chicken and other small pieces of food including vegetables such as potatoes	shrimp, chicken, cutlets; vegetables such as potatoes, onion rings, eggplant; fritters or doughnuts
Equipment Needed	fry pan or electric skillet spatula or tongs for turning	fry pan or electric skillet spatula or tongs for turning special frying thermometer	4–6″ deep x 8–10″ saucepan, medium to heavy weight or electric deep fryer frying basket; tongs or slotted spoon special frying thermometer or temperature control
Method	heat shortening or oil to about 365°F. (medium high heat); place food in pan turn when nicely browned, complete cooking and browning on other side drain food on paper towel serve immediately	heat shortening or oil to about 365°F. (medium high heat); place food in pan turn when brown; complete cooking and browning on other side drain food on paper towel serve immediately	heat shortening or oil to about 365°F. (medium high heat); submerge food, cook until brown and done remove from basket drain on paper toweling serve immediately

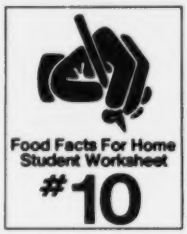
4. Fried Food Rating Scale

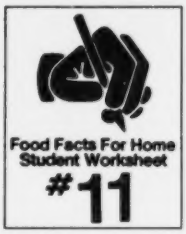
	Possible Points	Your Score
Appearance		
Golden brown surface	20	
Uniform color and shape	20	
Texture		
Crisp, tender, light	20	
Flavor		
Fresh, true flavor of food, not greasy	20	
Uniformly cooked	20	
Total Score	100	

5. Frying Trouble Shooter

If this happens . . .	It could be caused by this . . .	And corrected by this . . .
Food sticks to pan	• not enough shortening or oil • pan not well seasoned • food added before shortening or oil is hot	use the recommended amount of shortening or oil; season pan regularly by: heating unsalted shortening in pan, allowing to cool slowly, pouring out excess; wiping pan with a paper towel and buffing to a shine; avoid scouring or washing with harsh detergents
Spattering	• not enough shortening or oil • wet or very cold foods added to hot shortening or oil • fat overheated	use the recommended amount of shortening or oil; shake or blot foods to remove excess moisture or frost before frying; use moderate heat, about 365°F.
Food tastes greasy	• frying temperature too low • food allowed to sit more than 10 minutes before serving • food is kept in fat after frying is completed	use a high quality all-vegetable shortening or oil, heated to the recommended temperature, 365°F., for most food; avoid adding large amounts of cold food or cold shortening or oil during frying to lower temperature more than 25°F.; remove foods from hot fat as soon as cooking is complete; drain away from fat; serve immediately
Fat smokes	• fat overheated • fat not filtered correctly, if used previously • food not prepared well; bits of crumb or particles burnt in fat	prepare foods properly; be certain crumbs are well adhered to surface; filter used shortening by passing through cheesecloth or a fine sieve; heat fat to recommended temperature
Fat bubbles over	• too much fat in fryer or pan • too much food added at one time • food too wet • fat not filtered before use	fill pan or fryer only as directed; add moderate amounts of food; blot food before cooking; filter fat before using

Suggested Learning Activities





1. Have students prepare fried foods from Student Worksheet #10, then complete Student Worksheet #11, "How Would You Rate Your Fried Foods?". Summarize results.

   How many had problems of food sticking, fat smoking, etc? Have them determine what caused their problems and how to avoid the problems next time.

2. Use a 4" cube of bread to illustrate the cooking differences between pan frying, shallow frying and deep frying. Which method takes longest to brown the cube evenly? Which method results in the greatest fat absorption? Which method produces the most even browning on all sides?

3. Sum up student learnings about frying by using Master Visual #4, "Comparing Frying Methods." Use a wax based pencil to record student comments during discussion.

Module VI. Microwave Cooking, with Emphasis on Baking

Introduction

As an industry leader in manufacturing cake mixes and other products for baking, Procter & Gamble has received many questions about microwave cooking from educators and consumers. They want to know why and how microwave cooking works, what types of equipment are recommended for microwave cooking and, specifically, how cakes and other baked products can best be prepared using microwave cooking methods.

Fortunately, there are many excellent use-and-care guides provided by microwave oven manufacturers and several outstanding microwave cookbooks which can provide facts about the technology and general techniques of microwave cooking. Any or all of these can be used as classroom resources.

This section on microwave cooking was prepared by Procter & Gamble home economists and educational specialists to summarize the fundamental facts about microwave cooking, with a particular emphasis on using cake mixes and other baking products for best results. It is based on the critical concept that microwave and conventional cooking methods are complementary. Together they can enable consumers to bake cakes and other items conveniently, quickly and efficiently.

A research scientist named Percy Spencer first observed that microwaves could penetrate food and be used for cooking in 1945. By 1954, the first microwave ovens were marketed for consumer use. In recent years, the growth of the microwave oven industry has been rapid. In 1966, microwave ovens were used in 1-2% of all commercial foodservice operations; by 1977, they were used in approximately 35-40% of all convenience or fast food restaurants and 60% of all food vending machine centers. Today, about 12-15% of American homes have microwave ovens; sales figures suggest that before long 25-30% of all homes will be equipped with them.

These trends indicate that most, if not all, of your students will be using microwave ovens as employees of foodservice companies, consumers of vending machine products or individuals who own models for use in the home. The information you can share with your students today will help them in the future, as microwave ovens become more and more a part of their lives.

Since microwave cooking offers many exciting implications for commercial and personal use, it is hoped that you will be able to spend as much time as possible on the subject. The program materials included here have been designed for use alone or in combination with other educational resources you have available to provide flexible and innovative classroom discussion, food preparation activities and other learning experiences about microwave cooking.

Objectives: The student will be able to:

- Recognize the benefits of microwave cooking in preparing foods safely, conveniently, quickly and efficiently
- Understand the principles of microwave cooking
- Follow manufacturer's recommendations for using a microwave oven and appropriate equipment to make cakes and other baked products
- Compare microwave and conventional cooking methods in order to evaluate the quality features of products prepared by each technique

1. What is Microwave Cooking?

Microwave cooking is a food preparation process that relies on short, high frequency electromagnetic waves. These microwaves occur in nature, as do those used to transmit radio or television programs.

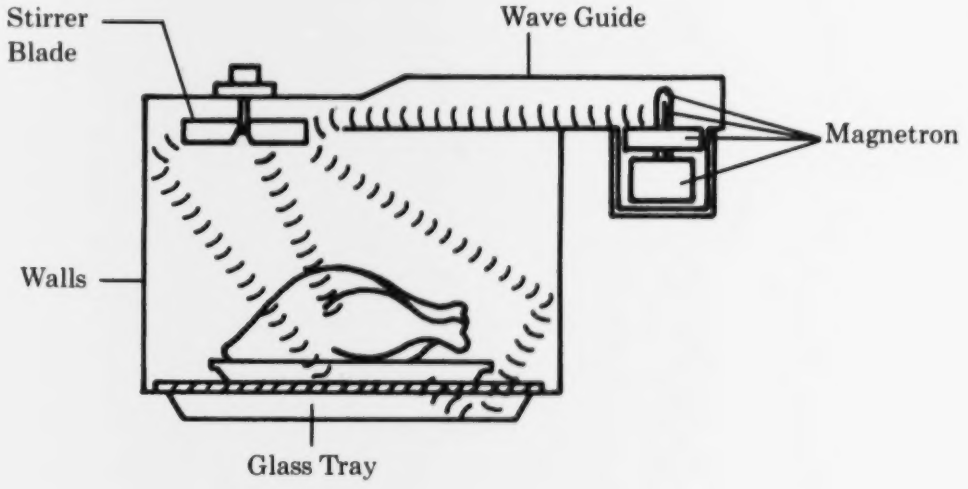
Microwaves are about five inches or less in length compared to radio waves which vary in length from three feet to many miles.

A microwave oven is essentially a self-contained "broadcasting system" in which microwaves are transmitted into the oven and then distributed within it by means of a stirrer blade reflector to penetrate food from all directions to a depth of ¾ to 1½ inch.

The microwaves do not cause a chemical change in food but do cause the water molecules in the food to vibrate very, very rapidly—almost 2½ billion times per second. This vibration causes heat and the food begins to cook. This principle behind microwave cooking is similar to that of rubbing hands together to warm them. The friction from rubbing causes heat; in microwave cooking the friction from the molecules vibrating at high speed also causes heat.

2. How a Microwave Oven Works

This is a diagram of the inside of a basic microwave oven.



Magnetron tube	broadcasts short, high frequency electromagnetic waves, microwaves, into the oven
Stirrer blade or Turntable	devices to help distribute the microwave energy evenly within the oven so it can penetrate food from all directions for even, quick and efficient cooking.
Stainless Steel, Acrylic or Epoxy Coated Metal Walls	reflects the microwaves to distribute them within the oven; since microwaves cannot penetrate metal, the walls also help contain the microwaves within the oven
Glass Tray or Ceramic Shelf	raises food above oven floor to allow microwaves to penetrate from the bottom

Other Operating Features Include:

Door Seal and Safety Locks	provide a tight seal so microwaves will be contained inside the unit; when safety locks are opened, the magnetron tube stops transmitting microwaves immediately
Timers and Power Controls	permit thawing, warming or cooking food when set according to manufacturer's directions; must be set according to the precise direction in the use-and-care guide

Note that microwave ovens have many different performance features. Consumers are advised to do comparison shopping to decide which features are most important for their own cooking purposes. A review of the use-and-care guides of various microwave oven models will be valuable in comparing performance features.

Understanding the Multiple or Variable Power Features of a Microwave Oven

The magnetron tube which transmits microwaves has two basic settings, "On" and "Off."

Through engineering advances, precision timed start/stop mechanisms have been incorporated in many current models of microwave ovens. This start/stop action allows the microwave to be introduced into and distributed within the oven in variable power ranges. The longer the magnetron tube is "On", the higher the cooking power it provides. This means that microwave ovens with multiple power features can be used for thawing, slow cooking, roasting and many other cooking techniques that would be difficult without multiple power ranges. At present there is no consensus about the names for each of the multiple power settings. This means that in one microwave oven, "Medium High" may mean 70% power, while in another it may mean 90% power.

It is important to refer to the use-and-care guides for specific microwave oven models to know exactly what each power setting means in terms of actual microwave power.

Most consumers who own microwave ovens report the multiple power feature is very advantageous. In many instances, older models or ones which do not have the multiple power feature can simply be turned on and off manually during cooking time. This, of course, is not as convenient as a multiple power feature on a microwave oven, but it is a practical solution. Most people who use the microwave oven report that at least three variable power settings are needed for general cooking purposes: HIGH, MEDIUM and DEFROST.

3. Is Microwave Cooking Safe?

Microwave ovens have been in use over millions of hours and repeated studies by the U.S. Department of Health and Human Services (formerly HEW), utility and appliance industry experts and independent testing laboratories show that *there has never been a case of human injury and that microwave ovens are completely safe when used following the manufacturer's instructions.*

The use-and-care guide of every microwave oven includes very specific safety instructions. The following general guidelines should be read carefully (and posted near the microwave oven for all to see):

- *Do not attempt to operate the oven with the door open;* each microwave oven has at least two separate safety switches which shut off all microwave energy transmission when the door is open or ajar.
- *Do not place an object between the front of the oven and the door; never operate the oven if the door is bent, warped or the seal is impaired in any way.*

- *Keep the inside and outside of the microwave oven clean, particularly the door and seal.* Wipe all surfaces with a damp, soapy cloth and wipe again with a plain damp cloth to remove soil or greasy residue.
- *Have the oven serviced periodically by a qualified service representative for signs of wear, damage or tampering.* With normal use, there is no need to be concerned about safety but do follow the manufacturer's recommendations for periodic service checkups. If there is any evidence of damage or deterioration of the seal, have the oven checked before using again.

4. Factors Which Affect Microwave Cooking Time

a. *Amount of Food:* the smaller the quantity, the quicker it will cook. For example, a single layer of a cake will cook faster than a bundt cake or a loaf cake.

It's important to note that in microwave cooking, the time required will increase as the volume increases. One cupcake will cook in approximately 30 seconds; 6 cupcakes will require about three minutes.

b. *Density:* the more dense the food, the longer it will take to cook. To illustrate, a thin batter cake will cook more rapidly than a thick batter cake, even if the same amount of batter is used in the same size baking container.

c. *Moisture:* too much moisture will lengthen cooking time. Most frozen vegetables can be cooked in a microwave oven without additional moisture and fresh vegetables can be cooked with only a tablespoon or a bit more water sprinkled on them.

d. *Starting Temperature:* the colder the food when cooking begins, the longer it will take to cook completely. Microwave cooking recipes are based on the common starting food temperatures. For example, eggs are normally kept in the refrigerator so recipes using eggs are based on a chilled starting temperature. If food is cooler or warmer than it would be under normal storage conditions, extend or reduce the microwave cooking time accordingly.

e. *Shape and Weight:* irregularly-shaped items take special attention. Thin portions must be protected from over-cooking by shielding, while thicker portions are cooking done. To prevent smaller sections from overcooking, arrange items in a circular pattern with smaller sections toward the center, so the largest parts are exposed to the most microwave energy. As an example, broccoli should be arranged so the heads are facing the center of a cooking container. Then the stems toward the edge will receive the greatest concentration of microwave energy.

f. *Rotation:* just as stirring is important in conventional range top cooking, rotating foods is essential during microwave cooking. The purpose is to expose all food surfaces to microwaves. Some microwave ovens have turntables which automatically rotate the food during cooking.eRotating is important in baking cakes as well as in cooking vegetables, meats and other foods. Foods in small pieces may be stirred to give equal exposure.

g. *Standing Time After Cooking:* because microwaves only penetrate food ¾ to 1½ inch below the surface, complete cooking is achieved through the process of heat conduction toward the center. Microwave recipes provide for standing time to enable foods to cook completely. Keep foods covered during standing time, to preserve the warmth and promote even cooking.

All of these factors contribute to produce the advantages which make microwave cooking popular:

- *food cooks from the heat formed inside it:* food does not have to be submerged or surrounded by heat, this helps retain nutrients and flavor and also keeps the oven cool.
- *food can be cooked in a variety of utensils which allow microwaves to penetrate:* following recipe recommendations foods can be cooked in paper, plastic, glass or pyra-ceram containers. Ingredients can be combined, cooked and served in the same utensil.
- *foods can be thawed, baked, roasted, warmed or reheated using the variable power settings on a typical microwave oven:* many types of food can be prepared using a variety of microwave oven settings, as the recipe recommends.
- *small quantities of food can be cooked quickly and efficiently:* brownies, cupcakes, coffee cakes and many other foods can be prepared in individual servings or small amounts, a great advantage for single or two-person households.

5. Baking in a Microwave Oven

a. What to Expect

Cakes and other products baked in the microwave oven will differ from those baked conventionally because of the unique cooking properties of the microwave. They will have some or all of the following characteristics:

- the surface will be natural colored, less uniform in appearance and lack a browned crust
- the surface will tend to be soft and perhaps slightly moist; microwave baked products do not get crisp
- the products will tend to rise higher, and be lighter in texture
- the products will cook very, very rapidly and can quickly become dry if not timed carefully

b. General Microwave Baking Methods

- use baking pans which are recommended for microwave cooking; metal pans are not recommended
- round baking pans are preferrable; square and rectangular pans can lead to slightly overdone corners
- prepare products according to recipe or follow package directions for microwave baking
- fill microwave baking pans as recommended, generally about ⅓ to ½ full
- bake only one pan of a product at a time
- for most ovens, rotate products about ½ turn midway through baking or as recipe/package directions suggest (this is not necessary for ovens with turntables)
- place baking pans on inverted microwave-safe dish to help promote more even cooking in some ovens
- products will be done before they begin to pull away from sides of pan. **Note:** Product may still look slightly moist on top, but this should disappear with standing time as provided by recipe or directions. Avoid overbaking to preserve moistness.
- cool products on flat surface; do not use rack

c. Microwave Cakes

- rich, moist batter type cakes are perhaps best but they bake best in donut shape. A glass inverted in center of baking pan can provide this shape. Dark or natural colored products have best appearance
- round, deep microwave (about 2″) baking pans are best since they accomodate greater cake volume; if not available remove extra batter so pan is ⅓ to ½ full (use extra batter for something like cupcakes)

d. Other Microwave Baked Goods

Below are some other baked foods that do well in the microwave. Consult your microwave cookbook for recipe or use recommended microwave directions for baking mixes.

Product	Microwave Performance
Snack Cakes	Rich, moist snack type cakes are generally good for microwave baking because of their natural colors and moistness.
Brownies/ Bar Cookies	Generally good for microwave baking.
Pies	Microwave pastry is exceptionally tender, puffy and lacks color. Graham or cookie crumb crusts are better for microwave.
Frostings/Fillings/ Toppings	Chocolate, marshmallow, butter and other typical ingredients melt rapidly in microwave. Most cookbooks provide several tasty ideas for finishing off your microwave baked products.

e. Combination Baking

The microwave can also be useful as a convenient time saver in recipes baked in a conventional oven. Some ideas are:

–melting or softening ingredients for recipes such as chocolate, marshmallow or butter
–precooking ingredients such as fruit for use in a recipe

f. Defrosting/Reheating

Microwave ovens are great for defrosting frozen baked goods. You can bake several items at a time and then freeze them for later use. Simply thaw as directed in your microwave cookbook.

You can also use your microwave to warm or freshen up baked goods such as rolls, biscuits or Danish products. Follow instructions given in your microwave cookbook.

Suggested Learning Activities

What do students know about microwave cooking?

1. Survey students. How many of them have a microwave oven in their home? How many have seen one used in someone else's home? What do they know about microwave cooking?
2. To develop their awareness about microwave ovens, have students start a collection of magazine or newspaper ads, articles and recipes regarding microwave cooking. Which facts or techniques that are included in these articles are unique and most interesting to them?

How do microwave ovens operate and cook?

1. Using an illustration or, if possible, an actual microwave oven, discuss the various parts and their function. How does each part operate to provide for safe, quick and convenient cooking?

2. Use Student Worksheet #13, "What makes a Microwave oven work?", the word scramble, as a review and summary learning experience. Duplicate and distribute one copy to each student.
3. Discuss the safety features provided on a microwave oven, particularly the two safety locks and the proper seal around the door (all have a slight gap around the door). Why is it essential to follow manufacturer's recommendations for using and maintaining a microwave oven? Why should the oven always be serviced by an authorized service representative?
4. Demonstrate the use of a microwave oven by heating water in a glass measuring cup. Have students feel the outside surface of the oven as it operates. Why is it cool? When the water is heated, have students feel the inside walls of the oven. Why are they cool? Have them carefully feel the measuring cup and its handle? Why is the cup hot but the handle cool? Emphasize that the cup has been heated because of the heat conducted by the water while the handle, which was not exposed to the water, is cool since the microwave passed through it.
5. Develop a list of basic equipment that would be appropriate for a person who had just purchased a microwave oven. Have students look in their own kitchens to locate suitable equipment.
6. Review the differences in cooking time, moisture retention, vitamin retention and natural flavor in microwave cooking compared to conventional cooking.
7. Demonstrate the variable power settings of a microwave oven by boiling water in a paper cup at LOW, MEDIUM and HIGH settings. Time the results.
8. Collect microwave cookbooks and/or recipes and have students review recipes which require LOW, MEDIUM and HIGH settings. Help them form generalizations regarding the types of cooking procedures that can be done using each variable power setting.

How does microwave cooking compare with conventional cooking?

1. Distribute copies of Student Worksheet #14, "Comparing Cakes, Conventional and Microwave Methods." As a first step have students prepare a chocolate cake from a mix. Bake one half in a conventional oven, the other half in a microwave oven. Use the worksheet to compare results of one cooking method versus the other. Which technique do they like best and why?

2. Have students prepare frostings, cakes, etc. using a microwave oven. Use the recipes on Student Worksheet #15. Why is the microwave oven so convenient for making these types of products?
3. Have students freeze one of the products which they prepared above, and then analyze the defrosting of that product in the microwave.
4. Divide the class into two groups. Have one group prepare brownies from a mix using conventional baking methods, the other using microwave methods. Compare the results. What were the differences in blending ingredients, equipment used, time required and flavor?

Part II.
FACTS ABOUT FOODSERVICE

"The National Restaurant Association has reviewed "Facts About Foodservice" and commends Procter & Gamble's educational efforts in presenting this excellent overview of the Foodservice industry, explanation of foodservice responsibilities, and career opportunities. Use of this material should provide students with a worthwhile learning experience and a realistic understanding of the Foodservice industry."

National Restaurant Association, 1977

Part II.
FACTS ABOUT FOODSERVICE

FACTS ABOUT FOODSERVICE, from Procter & Gamble, is designed to give insight into the expanding Foodservice industry. The kit can be used to train students to look at the foodservice field with broad vision, confident that the basic skills learned here will enable them to make an important contribution. To help make this kit a very practical and personal learning experience for students, the principles of values clarification have been incorporated.

Program Materials

Instructional material in the Educator Resource Guide is organized into seven modules. Each module includes objectives, background information and suggested classroom activities which can be adapted to specific needs. (Wider margins are provided on all pages for teacher notes.)

–The teacher may wish to use the background information as the basis for a lecture period or as a tool for leading class discussion on each module.

–Some teachers may also wish to assign certain students or teams of students to summarize background facts and report them to the class.

Program support materials are drawn from the Educator Resource Guide and are designed to demonstrate program points through student involvement/activities.

- Student Worksheets (set of seven, easily reproduced): values clarification exercises; an interview schedule for learning about specific foodservice jobs; attitude surveys; a sample job application; exercises to sum up facts about entry level skills. Make copies (one per student) or write out information on a blackboard and have students copy.
- Master Visuals for making overhead transparencies (two): focus classroom discussion on values related to working in companies of various size: keeping equipment in good condition.
- Wall Chart—a concept-building poster.

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Program Support Materials

Student Worksheets — For use see page(s)

1. Fact Finding About Foodservice 60, 86, 87
2. What Do You Look For When You Eat Out? 61, 84, 86
3. Work, What's In It For Me? 63, 86
4. Completing A Job Application 64
5. Do's and Don'ts For Deep Frying 74
6. Considering Cooking Methods 75
7. Keep An Eye Open For Food Safety 85

Master Visuals

1. Comparing Job Opportunities in Foodservice 60
2. Keeping Equipment Clean and In Good Condition 84

Wall Chart: Food Safety Checklist 85

Program Objectives

These materials are designed to help students:

- Comprehend the size, scope and predicted trends for the Foodservice industry
- Recognize career patterns within foodservice and relate them to personal values and goals
- Identify and/or develop personal traits which encourage on-the-job success
- Learn basic skills in preparing some foods (deep frying, pan frying, griddling, salad preparation) and in caring for equipment.
- Understand the importance of sanitation and safety in foodservice

Target Audience

FACTS ABOUT FOODSERVICE is planned for use with male and/or female students, grades 11-12, enrolled in Foodservice programs.

Timing

FACTS ABOUT FOODSERVICE is planned for use according to your needs. Depending on your curriculum, level of student achievement and/or time available, you may decide to use FACTS ABOUT FOODSERVICE as a self-contained learning package for a two to six weeks course, introducing the industry.

Or you may prefer to use the modules one or two at a time, alone or in combination with other resources you have available, throughout the school year.

To the Teacher

We suggest that teachers review the following background information on "Values Clarification, A Helpful Technique To Develop Career Awareness" before beginning the unit.

Values Clarification, A Helpful Technique To Develop Career Awareness

Values are beliefs or ideas about what is important or, perhaps more clearly, what is most important. Translated into action terms, values help shape goals or objectives, aspirations and ideals.

You may be quite familiar with values clarification techniques. If so, you know how useful they can be in helping students distill and order their ideas about the world of work.

But, if values clarification is new to you, try this simple exercise. (It is taken from a values clarification exercise in this unit—See Module III, Learning Activity #1, Page 63).

Rank the following aspects of a job from 1-most important to 6-least important.

RANK 1 to 6

__ job security
__ a good boss
__ friendly co-workers
__ a chance to help other people
__ a high salary
__ enjoy kind of work

Look over your answers. Are you more interested in people? Security? Money? Having friends at work?

This is a very elementary probe, much too limited to be a good predictor of your values. But, it is an example of a values clarification technique:

- there were no right or wrong answers;
- you were able to give the "most right" or "most comfortable" answer for you, or refuse to answer;
- the system is non-threatening, all possible choices must be equally appealing when viewed objectively. For example, it is nice to have a high salary, job security, etc.—a person's values weigh one aspect more important than another.

Values clarification works in helping students develop career awareness because the topic is value laden. That is, every person has beliefs or ideas about what is important, or most important, about working.

These beliefs or ideas or values affect how and what a student will learn and what type of career he/she will plan. Yet, even though values influence behavior in many ways, most often they are "beneath the surface" and people are not quite conscious of them.

Values clarification techniques attempt to change that. Through a continuing series of exercises, people first *identify* their values, then *strengthen or reaffirm* them, *order* them, and, finally, *act* on them.

For example, suppose a student values material possessions highly. He might plan to find a job right after high school that pays the most and work two jobs to have a double income. Values clarification exercises may help him realize that other aspects of a career are important, too. He might decide to go on to junior college in order to enter the foodservice field at a technical level for a higher salary *and* more job responsibilities. On the other hand, the same exercises may make him more certain that he wants to find two jobs right after high school. In values clarification, either decision is equally acceptable, since it is an expression of a person's interpretation of what is most important.

As an educator what role do you have in the values clarification process? You are a "facilitator." You direct the exercises in a supportive way by encouraging every person to respond and by recognizing all answers as equally valid.

If you want, you can share your own values with the students by stating openly, "These are my values . . ." or "This is what I think; you may not agree with me but . . ." It is important to convey the message that your values are no more "right" or "comfortable" than those of any of the students.

You may prefer not to share your values with the class. That is fine, too. The system works equally well either way.

Here are some examples of values clarification techniques included in this unit:

These exercises can be used to identify values.

1. Use Student Worksheet #2, "What Do You Look For When You Eat Out?," an opinion survey which allows students to identify the relative importance of cleanliness and service in a foodservice operation. See Module II, Learning Activity 6, Page 61.

2. Ask each student to describe their ideas of a good job by completing the sentence, "A good job ....." See Module III, Learning Activity 3, Page 64.

3. Have students make a list entitled, "My Ten Best Personal Qualities Related to Work." See Module III, Learning Activity 2, Page 64.

4. Have students identify jobs they might like in the foodservice field, then explain their choices.

These exercises can be used to strengthen or reaffirm values.

1. Use Student Worksheet #1, "Fact Finding About Foodservice." Have students interview a person working in a foodservice job they might like. Use the questions listed as well as any others they may have. Based on what is learned, students can decide whether or not that job is really suited for their own interests and skills. Why is it/why not? See Module II, Learning Activity 1, Page 60.

2. Use Master Visual #1, "Comparing Job Opportunities in Foodservice" to help students sum up their ideas about working in small, medium or large companies. Compare job aspects such as opportunities for advancement, benefits, job security and job satisfaction.

   Since this is a class exercise, many different values will be expressed so each student will be exposed to alternative value systems. As a result, each student should be able to feel more sure of what he/she really believes and/or values in a working situation. See Module II, Learning Activity 5, page 60.

3. Have students select a classified ad which describes a job they might like and write a letter of application for it.

These exercises can be used to order values

1. Use Student Worksheet #3, "Work, What's In It For Me?" to rank several aspects of a job such as job security, duties clearly spelled out, a chance for advancement, pleasant working conditions, etc. See Module III, Learning Activity 1, Page 63.

These exercises can be used to act on values

1. Use Student Worksheet #4, "Completing a Job Application." Have students role play an interview for that job. See Module III, Learning Activity 6, Page 64.

These are just a few examples of values clarification techniques used to explore career awareness in FACTS ABOUT FOODSERVICE.

If you would like to know more about this dynamic process, refer to the following resources. They provide a wealth of information.

1. Simon, S., Howe, L. and Kirschenbaum, H.; *Values Clarification, A Handbook of Practical Strategies for Teachers and Students;* New York, Hart, 1972.

2. Simon, S., Howe, L. and Kirschenbaum, H.; *New Strategies for Values Clarification;* New York, Hart, 1970.

3. Raths, L., Harmin, M., and Simon, S.; *Values and Teaching;* Charles E. Merrill, Columbus, Ohio, 1966.

Module L Foodservice, an Overview of the Industry

Objectives: The student will be able to:

- Discuss the size, scope and predicted growth of the Foodservice industry
- Identify different types of foodservice operations

1. Facts About Foodservice

a. Current and Future Size and Scope*

—the Foodservice Industry is the third largest retail buisness in the nation, exceeded only by food stores and automobile dealers

—there are currently some 591,795 foodservice operations in the U.S. (72% are commercial; 28% are institutional)

—foodservice sales are projected at $185.8 billion for the current year (1986).

—eight million people are employed by the Foodservice Industry today making it our nations largest retail employer.

b. Institutional Foodservice

—includes operations that serve meals only to workers, patients, students or others associated with a particular institution.

—meals can be purchased by individuals, included as part of total service fees, subsidized or purchases by local or federal funds

(1) schools, including colleges and universities
(2) military bases or institutions
(3) hospitals, nursing homes, child care or rehabilitation centers
(4) industrial cafeterias

c. Commercial Foodservice

—fastest growing segment of the Foodservice industry

—meals generally purchased but may be included as part of total service package

(1) hotels, motels
(2) restaurants, coffee or sandwich shops, tea rooms
(3) fast food operations
(4) retail, drug and department stores
(5) recreation and amusement

*Source—National Restaurant Association. For additional information/materials, write: National Restaurant Association, 311 First Street, N.W., Washington, D.C. 20001 (202/638-6100 or call toll free 1-800-424-5156).

2. Types of Foodservice Operations

a. Small Business Operations
- –small business operations such as coffee, sandwich or ice cream shops, tea rooms, catering services, sidewalk vending carts
- –proprietor has full responsibility for building and/or leasing property and insuring it, buying, preparing and serving food, maintaining records and facilities
- –most often commercial operations but may be institutional
- –owner must be willing to work as many hours a day as necessary to keep the operation going; frequently family members help in business
- –many operators of such small businesses report that their work is personally satisfying because they have complete responsibility for every decision and can measure their efforts by the success of the operation
- –may involve supervision responsibilities as the business grows and employees must be hired
- –owner responsible for his own income and benefits which may be generous or minimal, depending on volume and the efficiency of operation

b. Medium Sized Operations
- –usually commercial but may be institutional
- –restaurants, cafeterias or vending operations
- –may have started as a single,small owner-operated facility and expanded over the years to a large facility or several medium sized establishments throughout an area
- –may have as many as 100 employees, all supervised by management members of the local company which is responsible for establishing service standards, salary and benefits policies, personnel policies, etc.
- –management responsible for building and/or leasing facilities and insuring them, buying, preparing and serving food, maintaining records and properties
- –building design, menu planning and other operations conducted locally

c. Large Volume Operations
- –may be institutional or commercial
- –catering, restaurant, institutional (hospitals, military, etc.), hotel or motel foodservice facilities which hire more than 100 people
- –parent corporation builds and/or leases property and insures it, then hires employees to fill job responsibilities
- –menu planning, buying, preparation and marketing may be done at a central office or locally, depending on the operation
- –company provides salary and benefits according to an established scale

d. Franchise Operations
- –trademarks, building design, menu plans and recipes owned by a large corporation which has established quality and performance standards
- –most often medium-to-large volume operations specializing in fast food, hotel or motel foodservice, cafeteria service or carry-out service
- –individual units may be on long term lease or under a special purchase contract to a person who invests money for franchise rights and agrees to fulfill quality and performance standards of the franchising corporation
- –sometimes franchise units are managed by a person hired by the corporation on a salary plus commission-on-sales basis
- –marketing, advertising, buying and some food preparation done at a central location
- –many people enjoy a franchise working relationship because the supportive services of the franchise corporation allows the manager and other employees to serve large numbers of people efficiently and economically
- –franchise operations set their own salaries (based on state minimum wage laws), benefits

3. **Related Industries**
   a. supply raw materials or specialty items for institutional or commercial foodservice operations
      –industries which provide food
         (1) dairy processing plants
         (2) canneries
         (3) frozen food plants
         (4) meat, poultry and fish processing plants
         (5) bakeries
      –industries which assist in food distribution
         (1) food brokers
         (2) wholesale grocers
         (3) warehouses and frozen food distribution centers
         (4) trucking, train, ship, airfreight or other transportation operations

Suggested Learning Activities

1. Allow students to design, construct and staff a booth which can be placed in a local shopping center to explain the foodservice program in your school.

2. Develop a questionnaire about eating practices to survey the consumer trends related to foodservice in your community. Questions may include: How often do you eat a meal or snack away from home? Where do you eat–Restaurant, cafeteria, coffee shop, vending operation? What meal do you usually buy–Breakfast, lunch, dinner, other? What is most important to you–Price, quality or flavor, convenience, atmosphere, etc.

   After students have surveyed community members, compare their findings with national trends. Is your community more dependent on foodservice facilities than other communities? Why/why not?

3. Assign teams of students to investigate various foodservice operations in the area. These should include an owner-operated coffee shop, a medium sized quality restaurant, a fast food unit and a large volume institutional cafeteria. Ask the manager of each operation to explain his/her background and interest in foodservice, job responsibilities, number of employees, entry level openings, starting salaries, opportunities to advance, job benefits and qualities necessary for success in an operation of that type.

Module II. Foodservice Responsibilities and Job Opportunities

Objectives: The student will be able to:

- Recognize the responsibilities assumed by foodservice employees
- Identify the levels of education and training necessary for professional, technical, skilled and semi-skilled positions in the Foodservice industry
- Compare job opportunities in small and large foodservice operations

1. Foodservice Job Responsibilities

Depending on the size of the foodservice operation, there may be one or more people responsible for each of the following operations.

a. Managing or Supervising
- –maintain quality standards throughout the operation
  - (1) hire, train, and develop personnel
  - (2) check food production and customer relations
  - (3) foster good public relations
  - (4) know and understand new developments in the field
- –manager has ultimate responsibility for the total performance and functioning of the unit

b. Planning, Purchasing and Keeping Records
- –plan menus that provide a variety of nutritious foods
- –develop schedule for buying and preparing foods
- –review plans, sales and receipts
  - (1) plan and cost-out menus (cost-out: determine menu prices based on cost of food, labor, operating costs and profit margin)
  - (2) buy food supplies from broker or wholesaler
  - (3) pay bills and salaries
  - (4) match spending against income to determine profits
  - (5) recommend cost saving and revenue producing practices

c. Receiving, Inspecting and Storing
- –account for quality standards of food from arrival at facility until it is ready to be prepared
  - (1) check that all supplies ordered are delivered
  - (2) assure that delivered products meet quality standards
  - (3) plan for and supervise adequate storage

d. Preparing
- –use food supplies to prepare foods included on menu
  - (1) maintain high standards of sanitation
  - (2) use food efficiently
  - (3) present attractive products
  - (4) use equipment properly and economically

e. Serving
- –transfer prepared food from kitchen to tray, counter or table
  - (1) maintain high standards of sanitation, personal cleanliness and appearance
  - (2) serve foods hot or chilled, according to specification
  - (3) work efficiently with the public

f. Maintaining Cleanliness of Dishes, Equipment and Facilities
- –follow high standards of sanitation to prevent contamination of food, equipment or loss of flavor of food
  - (1) maintain high standard of personal cleanliness
  - (2) use hot water and disinfecting detergent in cleaning supplies
  - (3) rinse all items thoroughly to prevent off-flavors from developing in prepared foods

2. Job Opportunities and Qualifications

a. Professional
- –may require 4 years of college and a degree, ideally in foodservice, institutional management, dietetics or home economics
- –continuing education and/or graduate study recommended for advancement in some positions
  - (1) dietitian
  - (2) institutional manager
  - (3) operations specialist
  - (4) marketing specialist
  - (5) research worker
  - (6) accountant
  - (7) executive chef

b. Technical
- –may require 2 years of college, ideally with an associate degree in foodservice or institutional management
- –in some situations, a high school diploma plus continuing study and on-the-job training are sufficient
- –completion of a foodservice program during high school is helpful
  - (1) foodservice supervisor (restaurant, motel or hotel)
  - (2) school or institutional foodservice supervisor
  - (3) dining room manager
  - (4) catering manager
  - (5) tray-line supervisor
  - (6) research assistant
  - (7) operations or marketing assistant
  - (8) cashier/bookkeeper
  - (9) purchasing agent

c. Skilled
- –a high school diploma is helpful; completion of a foodservice program is helpful
- –on-the-job training important to advancement
  - (1) chef
  - (2) head cook
  - (3) school cafeteria cook
  - (4) head fry cook, baker, salad or dessert chef
  - (5) caterer
  - (6) hostess/host in a restaurant or dining room
  - (7) bartender
  - (8) waiter/waitress

d. Semi-Skilled
- –generally requires a high school diploma; completion of a foodservice program helpful
- –on-the-job training important to advancement
  - (1) cook helper
  - (2) short order cook
  - (3) pantry worker
  - (4) fountain helper
  - (5) counter worker
  - (6) tray-line worker
  - (7) car hop

(8) bus man or woman
(9) dishwasher
(10) kitchen helper
(11) maintenance person

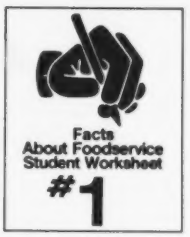
3. Comparing Job Opportunities in Foodservice

a. Job Responsibilities, Salary and Benefits Vary Depending on the Size and Type of Foodservice Operation

b. See Master Visual #1, Learning Activity 5, Page 60, to Discuss the Following with the Class.

Comparing Job Opportunities in Foodservice		
	Small Operations (1-20 employees)	**Large Operations (100 or more employees)**
Job Responsibilities	one person may have to assume several types of responsibility, for example, preparing and serving food	each person has a particular job, for example salad preparation, griddling, deep frying, etc.
Salary The more profit centered on the operation, the more likely salaries will be related to sales.	owner's salary depends on volume and wise use of money. employees' salaries may be slightly lower than large foodservice operations, but employees may receive bonuses or sudden large salary increases if business is growing fast.	generally standard for all employees of a certain skill level, in accordance with a salary schedule established by management; salaries may be negotiated by union contract. salaries may be higher than those of employees in small operations but less likely to include bonuses or sudden, large increases if business is good.
Benefits	may be generous or minimal, depending on the operation	usually quite generous and include health, disability, life and perhaps dental insurance.
Opportunity for Advancement	may be limited unless business is growing fast, then the chances to accept more responsibility are excellent.	excellent, since there are many foodservice jobs available within the organization; some large companies may have as many as 65 separate job titles.
Job Security The larger the company, the less likely it will be affected by short term economic downtrends and have to reduce employees.	depends on the economy, the general growth of the operation and the relationship between the owner and employees; often small businesses have very personal connections with employees and take pride in providing job security.	usually good because of company policies and, perhaps, union contracts.
Personal Satisfaction Satisfaction depends on an individual's needs, values and interests.	may be a close, friendly working situation which allows a person to feel responsible for the success of the operation.	may be a friendly, but formalized, working situation which allows a person to recognize his/her contribution to the overall success of a big company.

Suggested Learning Activities



1. Have students interview a person working in a foodservice career and complete Student Worksheet #1, "Fact Finding About Foodservice."

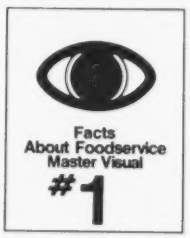
   Encourage students to select a broad range of employees, including professional, technical, skilled and semi-skilled workers.

   Have students report on interviews in class. (They could tape the interviews; take on-the-job pictures). Which person interviewed seemed to have the most interesting job? Why? According to the people interviewed, what types of job openings are available in your community? What are the general requirements for these positions?

2. Invite a panel of recent high school graduates (former foodservice students) who are working in foodservice to class. Ask them to talk about their job responsibilities, general career plans, continuing education or on-the-job training programs offered by their employers.

3. Through a stockbroker or by writing to companies directly, collect annual reports of large food processing or commercial foodservice companies. Have students select companies and report on their number of employees, profits, volume, rate of growth, recent business trends, plans for expansion, etc.

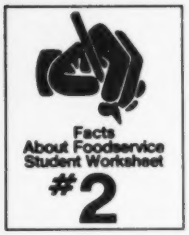
4. Have students survey local radio, T.V., newspapers and magazines for ads by restaurants or catering facilities. Which company advertises most? For example, a pizza place might only advertise on a local rock station which young people prefer, or a restaurant might advertise a senior citizens'discount in a newspaper which most adults in the community read. Which ads are most interesting? Why? How do the ads appeal to certain groups (e.g., senior citizens)? Have students investigate.



5. Use Master Visual #1, "Comparing Job Opportunities in Foodservice." Allow students to contribute opinions and record them with a wax based pencil. Add categories as necessary.

   How many students think they would like to work in a small company? medium? large? How many would like to own their own business? How many would rather not? Why?

   This exercise is designed to start students thinking realistically about careers. In the following section, there will be activities to focus in on a specific career that might interest them. You may want to use this Overhead Transparency again then. If possible, keep the comments on the transparency for that future discussion. How many ideas have changed? In what ways?



6. Have students complete Student Worksheet #2, "What Do You Look For When You Eat Out?" Summarize student responses during class discussion.

   How many students were more concerned with service than food? How many were equally concerned with both aspects of eating out? How many are very alert customers and very particular?

   What implications do their responses have on their own career goals? Will they have to sharpen their observation skills, improve personal habits, become more understanding?

7. Investigate wages for entry level jobs in foodservice. Have students check the Dictionary of Occupational Titles; National Restaurant Association; local newspaper ads; State Employment Office, etc. Are the jobs full or part-time? What jobs do not require a high school education? Are there opportunities for advancement in those jobs?

Module IIL Planning Ahead for a Foodservice Career

The student will be able to:

- Evaluate career choices in foodservice based on personal qualifications and skills, interests and values
- Practice skills in applying for a job

1. Personal Qualities Necessary For Foodservice Employees

a. Good Physical and Mental Health
- –stamina
- –appropriate height and weight
- –good posture
- –self-confidence
- –ability to give and/or follow directions
- –ability to get along well with people

b. Good Appearance
- –clean hair, skin, teeth, hands and nails, good personal hygiene
- –fresh look, cosmetics used sparingly
- –clean and appropriate clothing, perhaps uniforms

c. Character Traits
- –honesty, integrity
- –reliability, dependability
- –capability to fulfill job responsibilities
- –courtesy, conscientiousness
- –positive attitude

d. Training
- –education according to job specifications
- –on-the-job experience and continuing education

2. Assessing Personal Skills and Interests

a. Skills Related to Foodservice Careers
- –supervise other people
- –organize
- –work efficiently
- –take direction well
- –buy food or supplies
- –prepare food
- –serve food
- –maintain standards of cleanliness
- –keep records

b. Interests Related to Foodservice
- –enjoy working with food
- –enjoy working with people
- –enjoy working with records to chart sales, costs and profits
- –enjoy buying or paying for supplies
- –anxious to move ahead and accept more responsibility

3. Personal Values and The World of Work

a. Determining Values
–values are consciously or unconsciously held beliefs about what is important
–values are personal judgments based on experiences and interests
–values can be identified in order to use them as a decision-making tool

b. Values Can Affect Job Satisfaction
–what is most important about a job?
–what are the advantages/disadvantages of a particular job?
–what do I want to contribute to a job?
–how closely do the aspects of the job match my values about working?

4. Setting a General Career Goal

a. Comparing Jobs
–opportunities available
–personal values
–skills and interests

b. Deciding on a First Job
–based on entry level skills, education, experience
–considering the job as part of a complete career

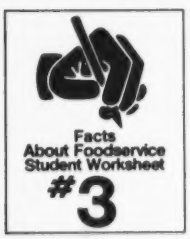
5. Job Finding Skills

a. Reading Advertisements

b. Registering with A Government Supported Or Private Employment Agency (understand terms of fee, if any)

c. Applying for A Specific Job
–writing a letter of application
–completing an application form
–interviewing for a position

Suggested Learning Activities



1. Have students complete Student Worksheet #3, "Work, What's In It For Me?" Sum up student responses in class discussion.

   How many students are more concerned about external working conditions such as surroundings, friendliness of co-workers, etc. than about personal considerations such as chance to continue an education, be creative or be promoted?

   How many students could name more than two jobs in foodservice they might like? Make a list of all the jobs named. How many were named by several students? How many students named professional level jobs? Technical? Skilled or semi-skilled jobs?

   How many students had difficulty ranking the aspects of a job?

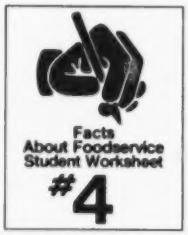
2. Have students make a list entitled, "My Ten Best Personal Qualities Related To Work." How many could not complete the list? How many could have thought of many more qualities? How many have experience working in foodservice? How is this experience related to their career goals?

3. Ask each student to describe his/her idea of a good job by completing the following sentence, "A good job . . ." Write all the comments on the board. Have class vote on which phrases they agree with. Try to arrive at a definition of a good job which suits all the students.

   Generally, this will be difficult and the object of the exercise is to show students that jobs are very personal and that each person sees them in relation to his/her own skills, interests and values. In short, no job is right for everyone.

4. Make flashcards of job titles and hold them up, one at a time, before the class. Have students call out advantages/disadvantages of each occupation and determine if there are avenues for advancement.

5. Have students look through the classified section of a local newspaper and circle a help wanted ad that appeals to them. Then, have each student write a sample letter of application.



6. Have students complete Student Worksheet #4, "Completing a Job Application."

   Help students learn how to handle delicate situations. For example, if a person was fired for stealing, he/she really should mention it on an application rather than have a potential employer learn about it in discussion with references.

Module IV. Some Basic Food Preparation Skills

Objectives: The student will be able to:

- Perform basic skills of deep frying, pan frying, griddling and making salads
- Recognize the importance of these skills in obtaining a job and on-the-job success

1. Deep Frying

a. Cooking Foods by Submerging Them in Hot Fat

–popular in restaurants and other foodservice facilities because deep fried foods are not prepared often at home

–economical to prepare since only what is ordered is prepared: in addition, heat is concentrated in a small unit for efficient use of energy

b. Typical Deep Fried Menu Items

–meats, seafoods

(1) chicken
(2) breaded veal or pork cutlets
(3) breaded shrimp, fish fillets or sticks
(4) croquettes

–vegetables

(1) onion rings
(2) potatoes
(3) eggplant

–dessert items

(1) doughnuts
(2) specialty pastries

c. Deep Frying Terms

–frylife–length of time fat or oil continues to produce high quality fried foods

–fat turnover–amount of fat absorbed by food which results in the need to add fresh fat

d. Deep Frying Methods (DO'S and DON'TS)

DO'S...

Prepare for frying

- buy fat by comparing fried food quality, usage and value
- keep kettle, heating elements and exhaust vent clean
- use stainless steel kettles and baskets; be certain repairs on them are also done in the metal
- fill kettle with new or filtered oil (fill to within 1/2" of the fill mark for liquid shortenings)
- begin heating oil about 30 minutes before use
- heat oil to 350°F., the ideal temperature for deep frying (except doughnuts - 400°F.)
- check thermostat daily to be sure it is working correctly
- keep fry baskets in good repair
- wipe off excess crumbs and blot moisture if necessary

DONT'S...

- use fat that gives inferior quality food
- use equipment that is heavily coated with oil or work in a kitchen with poor ventilation; both may affect food flavor and can cause fires
- expose fat to copper or brass; chemical reaction to these metals can cut frylife by 30%
- overfill kettle; fat can not heat properly to cook and brown food
- allow heated oil to remain unused more than 15 minutes; turn down heat to 200°F.
- overheat; it wastes energy and burns food and reduces frylife
- overheat oil; foods will not cook properly and oil may ignite
- allow crumbs or excess moisture to enter fat; they reduce frylife

During frying

- fry foods as they are ordered, avoid throwaways
- fry ahead because food will get limp and taste greasy if not served immediately

- fry frozen food frozen for maximum flavor and proper fat absorption
- fill fry baskets about half full so food will be submerged and float freely
- fry potatoes, breaded fish or cutlets and vegetables according to recipe directions
- drain foods 15-30 seconds after frying, then dump away from fryer
- skim fat after every use
- serve foods immediately

- thaw frozen foods, they will absorb 50% more fat and have a greasy taste if partially thawed
- overfill the fry basket; food can not submerge or float freely in cooking oil
- cook bacon or sausage in the fryer; the animal fat in them reduces frylife
- hold cooked foods over hot oil for long periods; they will get limp and taste greasy
- allow food particles to collect in fat; they reduce frylife and can cause oil and foods to develop an off-flavor
- allow food to stand, even under a heat lamp, more than 10 minutes; it gets limp and tastes greasy

Keeping fryer and fat in good condition

- filter fat daily or more often if heavily used; filtering increases frylife up to 60%
- discard shortening after normal frylife is completed (when shortening can no longer produce good quality fried foods)
- use a stiff bristle brush to scrub kettle, heating element and baskets at least once a week, more if used heavily (see detailed instructions for cleaning, pg. 73)

- use unfiltered fat; it has a disagreeable odor, smokes, gives food an off-flavor and may give food "black specks"
- use broken down shortening; it causes excess smoking, loss of flavor, foaming
- use steel wool or abrasives that can leave particles which may contaminate food

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e. Deep Frying Trouble Shooting Guide

PROBLEM	POSSIBLE CAUSES	PROBABLE CURES
		GENERAL RULES:
Fat darkens excessively • takes on a black appearance during normal frylife	• use of fat high in impurities • overheating; possibly defective thermostat • insufficient filtering • equipment not clean or well-rinsed • equipment not working properly; possibly hot spots in kettle • excess food particles or foreign matter in fat • use of improperly prepared food	• use best quality fat • fry at proper temperature, 325°F. for raw to done chicken; 350°F. for most other deep fried items (doughnuts are fried at 390-400°F.) • filter fat daily • clean equipment (boil out and scrub) at least once a week being sure to wash out the smallest trace of detergent • skim particles from the kettle regularly
Fat smokes excessively • noticeable smoke coming from the kettle and, perhaps, filling the kitchen	• insufficient filtering • use of fat high in impurities • overheating; possibly defective thermostat • equipment not clean or well-rinsed or not working properly; possibly hot spots in kettle • insufficient ventilation • normal frylife finished; shortening at throwaway point • use of improperly prepared food • excessive moisture getting into the hot fat	• use skimmer regularly • make sure foods are drained of excess moisture before cooking
Fat will not hold heat or brown food • life apparently gone from fat • foods do not cook and/or brown in expected time	• too much foam on top of fat • overloading kettle • temperature too low; possibly defective thermostat • use of improperly prepared food • kettle not working correctly; improper recovery • insufficient cooking time	• make sure food is drained of excess moisture before cooking • make sure kettle has time to recover normal temperature before adding additional food

Fat foams excessively • fine white or yellowish bubbles build up on surface and remain there during frying	• use of fat high in impurities • overheating or failure to reduce heat when fat is not in use; possibly defective thermostat • salt or excess food particles in fat • brass or copper being used in kettle • insufficient filtering • equipment not clean or well-rinsed • kettle not working correctly; possibly has hot spots • kettle too large for given operation • kettle overfilled with fat	• turn frying kettle down to 200° F., or completely off, when not in use for 15 minutes or longer. • do not fill kettle above the fill line • use two small kettles rather than one large kettle
Foods greasy • too much fat absorbed during frying • fat drips or pours from cooked food • fat used up too rapidly	• frying at too low a temperature; possibly a defective thermostat • overloading kettle • frying in foaming fat • normal frylife is finished; shortening at throwaway point • improper preparation of food • keeping food in fat after it has finished cooking • insufficient draining • kettle not working correctly; improper recovery • initial drop in temperature after adding food is more than 30-40°F.	• check with deep-frying thermometer to see that initial drop in frying temperature due to frying load is not more than the normal 30-40° F. • make sure food is frying in fat, not foam. If fat is foaming, it must be discarded. • when food is fried, remove from fat and allow to drain over kettle for 15-30 seconds • make sure kettle heat recovers to normal temperature before frying additional food
Fat has objectionable odor or flavor • odor from kettle is unappetizing • food takes on an unpleasant flavor	• use of fat high in impurities • use of fat which is beyond normal frylife • excessive crumb material in fryer • drip back from exhaust stack or other foreign material in kettle • equipment not clean or well-rinsed • poor quality food to be fried • insufficient filtering • frying a mild-flavored food after frying a strong-flavored food	• strain fat regularly to remove burnt materials • make sure stacks are properly cleaned, and keep kettles covered when not in use

2. Pan Frying

a. Cooking Foods by Shallow Frying in a Pan
- –very popular method of preparing food because it is fast and gives a good flavor
- –similar to deep frying in that it is an economical foodservice preparation method; food is cooked to order and heat is concentrated for efficient energy usage

b. Typical Pan Fried Menu Items
- –meats, seafoods
  - (1) steaks, chops, hamburgers, liver
  - (2) chicken
  - (3) fish, whole or fillet
- –breakfast items
  - (1) eggs, omelets
  - (2) sausage, ham slices, bacon
- –vegetables
  - (1) potatoes
  - (2) egg plant
  - (3) mushrooms, zucchini

c. Method
- –the amount of fat used varies in different parts of the country according to regional tastes; generally ½" of fat is used for entree items such as chicken and a lightly coated pan is used for eggs or other breakfast items
- –shortening, butter and cooking oil are the most typical fats used for pan frying
  - (1) heat pan to 300-325°F.
  - (2) pour fat into pan and swirl evenly to coat
  - (3) pour excess fat into container
  - (4) place foods in pan at the recommended temperature, between 300-325°F.
  - (5) turn when nicely browned, pan fry other side
  - (6) serve food immediately

d. Keeping Fry Pans in Good Condition
- –season pan before first use and after each washing by:
  - (1) heating pan to 325°F.
  - (2) pouring a small amount of shortening into pan
  - (3) rubbing pan surface until a mirror-like finish is obtained
- –keep pan warm during service hours, if used frequently; allow pan to cool only if it is not used for a half hour or more
- –wipe pan clean with a dry cloth after every use

See Module VI, page 82, for details on cleaning.

3. Grilling (Griddling)

a. Cooking Foods by Placing Them Directly on a Hot Grill Surface (Flat Metal Surface)
- –useful foodservice technique because it can be used for preparing several types of food simultaneously and for cooking large quantities of food at once
- –similar to deep frying in that it is an economical foodservice preparation method; food is cooked to order and heat is concentrated for efficient energy usage

b. Typical Menu Items Prepared on a Grill
- –meats
  - (1) hamburgers
  - (2) steaks
  - (3) cutlets, chops
  - (4) bacon
  - (5) sausage
- –vegetables
  - (1) hash-browned potatoes
  - (2) onions
- –other foods
  - (1) eggs, omelets
  - (2) grilled sandwiches
  - (3) pancakes
  - (4) French toast

c. Method
- –shortening is the most typical fat used for grilling
  - (1) heat only the area of the grill needed for cooking
  - (2) use recommended grilling temperature

300 - 325°F.	eggs, bacon
350°F.	hamburgers steaks, cutlets, chops, sausage, hash-browned potatoes, grilled sandwiches
400°F.	pancakes

    - check the accuracy of the temperature regularly with a special surface thermometer which can be placed directly on the grill; hot spots will cause sticking
  - (3) put just enough shortening on grill to lubricate the surface but not float foods
    - excess shortening will burn onto surface and create a varnish or gum-like material which will cause sticking or off-flavors
    - scrape excess fat off surface before grilling
  - (4) place food on grill and cook until finished
  - (5) serve immediately

d. Keeping Grill in Good Condition
(see Module VI, Page 81, for details on cleaning.)

4. Making Salads

a. Typical Salads Included in Menus

–tossed

(1) fresh vegetables such as lettuce, spinach, endive, escarole, tomatoes, celery, carrots, cucumbers, mushrooms or onions crisp; cool and combine, then season with oil and vinegar or a blended oil-based dressing

–make-it-yourself vegetable salads

(1) raw vegetables plus complimentary foods and condiments such as crisp bacon bits, pickles, cottage cheese or spiced apples, etc., arranged on a table for customers to combine as they like; several oil-based dressings available for seasoning

–fruit, seafood or meat salads

(1) pieces of fresh fruit combined in their own juices, served alone with other fruits or with a mayonnaise or cream-based dressing

(2) chunks of tuna, shrimp, lobster, crab, chicken, ham, turkey or egg combined with chopped onion, celery and other fresh vegetables, then seasoned with mayonnaise or another oil-based dressing

–marinated fish or vegetable salads

(1) chunks of herring or other fish which has been soaked for several hours or days in an oil-vinegar combination

(2) kidney beans, white beans or green beans, mushrooms, tomatoes or other vegetables which have been soaked for several hours in an oil-vinegar combination

–macaroni or potato salads

(1) cooked macaroni or potato slices or chunks combined with chopped onion, celery, pimento and other ingredients, then seasoned with an oil and vinegar or mayonnaise dressing

–jellied salads (including fruit-flavored gelatin)

(1) aspics or gelatin combinations served on a bed of lettuce, generally with a mayonnaise or cream-based dressing

b. Qualities of a Good Salad

–ingredients make an interesting combination of flavors and textures

–ingredients kept crisp and cool until serving

–dressing compliments the natural flavors of salad ingredients

–salads are refreshing and interesting entrees, appetizers or accompaniments to luncheon or dinner meals and are among the most popular menu selection in many foodservice operations

c. Preparation Methods

–fruits or vegetables

(1) wash well in cool water

(2) peel, if necessary

(3) blot dry

(4) break or cut into bite-sized pieces

(5) toss lightly together

(6) depending on type of salad and recipe, chill or heat, serve immediately or allow to sit so that flavors may blend

–seafood or meat

(1) cook until done

(2) chill

(3) skin or peel, as necessary

(4) cut into bite-sized pieces

(5) combine with other ingredients, add dressing immediately or just before serving depending on type of salad and recipe

(6) serve chilled and crisp

–jellied salads

(1) dissolve gelatin in hot water according to recipe or package directions

(2) allow mixture to cool until slightly thickened

(3) add remaining ingredients, stir or whip following recipe directions

(4) rinse mold with cold water

(5) pour gelatin mixture into mold

(6) refrigerate to chill until firmly set

(7) to remove from mold:

- use a small pointed knife, dipped in warm water, to loosen top edge. Or, moisten tips of fingers and gently pull jello/gelatin from edge of mold.
- dip mold, just to rim, in warm (not hot) water—about 10 seconds. Lift from water, hold upright, and shake lightly to loosen mold.
- turn container upside down on a plate or bed of lettuce, tap mold lightly, salad will slide out

(8) serve immediately

5. Making Coffee

a. The Importance of Coffee in Foodservice
- —often the first or last item a customer is served in restaurants and other foodservice facilities
- —provides a lasting impression of the quality of a restaurant or other foodservice facilities
- —can help draw customers into the same restaurant or foodservice facility time-after-time
- —can help to sell other menu items such as breakfast or desserts

b. Attributes of Good Coffee
- —served fresh and hot
- —consistently rich flavor and aroma
- —full-bodied
- —no bitter after-taste

c. Coffee in Foodservice
- —forms
  - (1) ground roast
    - —used in drip coffee makers in restaurants and other foodservice facilities
    - —includes "increased yield" forms such as flaked coffee designed to produce more coffee brew for a given amount of dry coffee, e.g., Folger's for Foodservice
  - (2) instant
    - —soluble coffee which has been brewed and then had the water removed by either spray-drying or freeze-drying.
    - —used to make one cup of coffee at a time; prepared by adding hot water
    - —limited usage in restaurants and other foodservice facilities
  - (3) decaffeinated
    - —coffee which has had most of the caffeine removed
    - —generally served in instant form in restaurants and other foodservice facilities

d. Foodservice Coffee Equipment
- —urn
  - (1) makes 3-6 gallons of coffee per batch
  - (2) coffee is kept warm in the brewer after brewing
- —bottle brewer
  - (1) makes 10-12 cups of coffee per batch
  - (2) coffee is kept warm in a carafe after brewing

e. Method
- —foodservice coffee is delivered in portion-controlled packages; no measuring required
  - (1) open package of coffee only when ready to use so that the coffee remains fresh
  - (2) insert only one filter into the brew basket
  - (3) distribute coffee evenly in the filter
  - (4) start the brewing cycle
  - (5) remove the coffee grounds immediately after brewing
  - (6) stir freshly brewed coffee before serving so that it is consistently mixed
  - (7) minimize the amount of time brewed coffee is kept since it will become bitter after about 1 hour in an urn and ½ hour in a bottle brewer

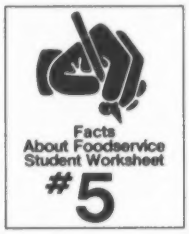
f. Keeping Coffee Brewers in Good Condition
(See Module VI, page 82, for details on cleaning.)

Suggested Learning Activities

1. Demonstrate deep frying techniques. After this, allow students to fry french fried potatoes which have been frozen and thawed and ones that are still frozen. Compare results. Which potatoes absorbed the most fat? Which potatoes are most crisp? Which are most tasty?

2. Have students deep fry six fish fillets.
   –remove and drain one fillet and taste it immediately
   –put three fillets under a heat lamp for 15–20 minutes
   –leave two fillets draining over the hot grease for 15–20 minutes

   Taste samples from the three groups at five minute intervals. Which is most crisp and flavorful? How do appearances compare? Summarize these findings to help students understand the importance of draining briefly and dumping foods away from hot fat, then serving immediately for maximum flavor.



3. Have students complete Student Worksheet #5. "Do's and Don'ts For Deep Frying". Review the sheet in class so that all students have the complete and correct answers. Notice that this sheet is arranged so that all processes are noted in their order for deep frying. For example, items relating to frying are before ones relating to draining. When all students have a complete and accurate sheet, they can use it throughout the term as a reference piece.

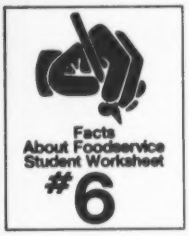
4. Demonstrate pan frying and griddling methods. Allow students to practice these techniques. Have them taste test their products and evaluate their techniques for efficiency.

5. Provide as many vegetables as possible for students to taste test. Encourage them to use unusual vegetables in salads to make interesting flavor combinations. Some examples are rutabagas, turnips, cauliflower, mushrooms, spinach, and broccoli which are all excellent raw. Cooked and cooled vegetables are good for salads as well, for example, lima beans, whole kernel corn, diced sweet potatoes and green beans.

   Allow students to experiment with many vegetables to develop recipes for new salads. Salads can be tossed or jellied.

6. Have students prepare a make-it-yourself salad bar including unusual items such as almonds, raisins, chutney, anchovies or chili sauce in addition to the standard salad ingredients.

   Encourage them to use creativity in combining flavors. This is an interesting way to expand their awareness of types and textures of food.



7. Have students complete Student Worksheet #6, "Considering Cooking Methods", to summarize learnings about deep frying, pan frying, griddling and salad making. How many students could complete the sheet correctly? If students are not skillful at remembering details, allow them to refer to a cookbook in order to complete chart.

   How many students listed more than one preparation method for items such as chicken, frozen shrimp and hamburgers? Encourage them to identify all the appropriate methods for preparing food before they begin to work. It will allow them flexibility in using equipment and allow them to offer many menu choices to their customers, for example, deep fried chicken, pan fried chicken, chicken salad.

Module V. Fats/Oils Used in Foodservice

Objectives: The student will be able to:

- Name the sources and forms of various fats and oils
- Identify specific usage of fats or oils in basic foodservice skills (baking, frying, making salads)

1. Fats/Oils In Foodservice

a. Sources
- –vegetable
  - (1) soybean
  - (2) cottonseed
  - (3) corn
  - (4) olive
  - (5) peanut
  - (6) safflower seed
  - (7) palm fruit
  - (8) sunflower seed
- –animal
  - (1) butterfat
  - (2) rendered pork (lard)
  - (3) rendered beef (tallow)

b. Forms, Compositions and Characteristics
- –oil
  - (1) liquid derived from vegetable or animal sources which has been processed to remove particles which would otherwise become solid at refrigeration temperatures
  - (2) anti-foaming agents added to some to prevent foaming during frying
  - (3) flavor may be bland, or quite distinctive depending on source
- –shortening
  - (1) solid or semi-solid made by modifying part of the liquid oil from vegetable or animal sources by hydrogenation
  - (2) emulsifiers added to some shortenings to improve baking and icing performance
  - (3) methyl silicone added to some shortenings to prevent foaming during frying
  - (4) may have no flavor or a bland flavor which combines well with other foods
- –margarine
  - (1) a combination of at least 80% fats, normally vegetable in origin, milk solids, water, salt, flavoring, Vitamins A and D and generally yellow food coloring
  - (2) available in sticks, tubs and bulk, in regular or whipped varieties.
- –lard
  - (1) fat rendered from the fatty tissue of pork
  - (2) normally contains preservatives
  - (3) plastic consistency
  - (4) mild but distinctive flavor
- –butter
  - (1) derived from milk, an animal source
  - (2) a combination of at least 80% butterfat, milk solids and usually salt
  - (3) an important source of Vitamin A and to a lesser extent Vitamin D
  - (4) available in sticks, 1 lb. bars, tubs and bulk, in plain or whipped varieties
  - (5) may be salted or unsalted

2. Specific Fats or Oils Products used in Foodservice

TYPE/DESCRIPTION	EXAMPLES	USES
Liquid Vegetable Fats Fats which contain solid particles suspended in a liquid or oil fraction. They are fluid and can be poured for easy handling.	**Frymax:** A bland, creamy white all-vegetable liquid which contains a special stabilizer, to provide fry kettle stability and longer frylife.	Deep, shallow or pan frying.
	Prep: Prep is a golden, buttery-flavored specialty fat for all foodservice griddling and pan frying. The buttery flavor in Prep is micro-encapsulated to prevent the flavors from "burning off" at griddle cooking temperatures; therefore, the flavor is delivered to the patron in the cooked food.	Griddling, pan frying, broiling and bun toasting.
	Whirl: Whirl is a buttery-flavored alternative to butter and margarines. Whirl is liquid, contains no water or milk solids, requires no refrigeration; however, Whirl's unique flavor system delivers delicious "honest-to-butter flavor" to foods.	Sauteing; as an ingredient in sauces; seasoning of vegetables; as a recipe ingredient in toast, rolls or biscuits.
	Nutex: fluid all-vegetable shortening containing a special blend of emulsifiers. It is designed to produce soft, moist cakes with excellent keeping qualities. Because it is pourable at normal temperatures, it is easier to measure and store than solid fats.	All types of layer and pound cakes.
Solid Plastic Shortenings Shortenings which appear solid at room temperature (60–80°); can be made from vegetable oils such as soybean, cottonseed or palm oil or from meat fats such as lard from hogs or tallow from beef. Vegetable oils produce solid shortenings with better flavor, stability and a more uniform quality. Generally they are easier to use than plastic shortenings made from meat fats. Hydrogenation process used to harden vegetable oils to the proper consistency for intended use and provide flavor protection, stability to heat and store.	**Primex:** all-vegetable shortening which contains a frying stabilizer to improve its all-purpose performance. Used in restaurants and institutions, if solid shortening is preferred.	Pie crusts, cookies, doughnut frying, general purpose baking.
	Primex III: All-vegetable solid shortening specifically formulated for deep frying.	Deep frying chicken, seafood, hush puppies, doughnuts and fruit pies.
	Sweetex: all-vegetable shortening which contains mono- and di-glyceride emulsifiers; the first and original "High Ratio" shortening to fit the needs of bakers who make cakes that contain higher proportions of sugar, shortening , milk and eggs, in relation to flour.	Cakes, icings, sweet yeast goods, whipped toppings and icing bases.
	Golden Sweetex: golden yellow all-vegetable shortening with added buttery flavor/aroma: contains mono- and di-glyceride emulsifiers: designed for use in a wide-range of baked goods.	Sweet yeast dough, danish pastry, yeast raised doughnut doughs, specialty rolls and breads, pie crust, non-white cakes and icings.

CONTINUED NEXT PAGE

Specific Fats or Oils Products (continued from page 69)

TYPE/DESCRIPTION	EXAMPLES	USES
Liquid Oils Clear "salad oils" which contain no solid fat particles at normal usage temperatures, above 40°F. Can be made from basic vegetable oils such as soybean, cottonseed, corn, peanut, olive and safflower.	**Sterling Salad Oil:** light, clear liquid all-vegetable oil with a bland flavor; processed by "cold proofing" method which removes parts of the oil which are solid at temperatures near freezing; this "cold proofing" method improves quality and eliminates any oil taste; lightly hydrogenated to improve keeping quality.	Salad dressings, mayonnaise, deep frying and pan frying.

3. Function of Fats/Oils in Preparing Foods

a. In Frying
- –add to the food's eating quality and flavor
- –prevent food from sticking
- –help transfer heat
- –produce degree of brownness

b. In Baking
- –prevent strands of gluten in flour from sticking together in order to produce a tender and/or flaky product
- –help retain moisture

c. In Making Salads
- –coat vegetables to add moisture and flavor, all-vegetable oils are preferred for salads (soybean, cottonseed, corn, peanut, olive and safflower)
- –help distribute flavorings such as salt, herbs or spices evenly

Suggested Learning Activities

1. Set up a display of the various fats or oils used in foodservice operations. On index cards write phrases such as "ideal for making salad dressing" or "best for deep frying chicken". Have students draw index cards at random and place them in front of the appropriate product. Each student should explain their reasons for placing the cards as they do.
2. Have students heat shortening or cooking oil to 350°F., the normal frying temperature. Is there noticeable foaming, discoloration, odor? Compare the speed with which each product heats. What is the difference in speed between a frying pan and a deep frying kettle? Fry a slice of bread on a grill, in a pan and in a deep fryer. Compare speed, amount of fat absorption, degree of brownness.
3. Make salads using several types of oil. Which one provides the most distinctive flavor? Which one combines most easily with other ingredients? What are the cost differences among brands?
4. Invite an executive from a local foodservice operation to class to discuss purchase and use or shortenings and oils.

Module VI. Foodservice Sanitation and Safety

Objectives: The student will be able to

- Explore the importance of maintaining high standards of cleanliness and safety in foodservice operations
- Demonstrate techniques for cleaning and using equipment properly

1. Good Sanitation Practices

–prevent contamination of food and development of off-flavors

–see chart below showing temperatures for food safeness; washing tableware and utensils; handling and storing food.

–develop a regular schedule of cleaning all equipment and facilities

TEMPERATURES FOR FOOD SAFENESS*

*National Restaurant Association

a. Good Sanitation Practices Begin with Individuals
   - —wash hands often (use soap and water)
     (1) at beginning of each work period
     (2) before handling food
     (3) after using a handkerchief
     (4) after smoking
     (5) when returning from restroom
   - —keep fingernails short and clean
     (1) nail polish should not be used when preparing food since it may chip and fall into mixtures
     (2) nail polish, if used when serving food to the public, should be clear or light colored
   - —protect open cuts
     (1) bandage properly
     (2) change bandages frequently
     (3) cover bandanges with waterproof gloves when preparing food or washing dishes to prevent contamination or infection
   - —keep hair away from food
     (1) style hair away from face
     (2) wear a net if hair is long or tends to fall out easily

b. Cleaning Utensils and Pots and Pans
   - —soak equipment that requires it
     (1) items which have held eggs, batter, breading mix or any protein based foods should be soaked in cold water to loosen food from surfaces; hot water will tend to make these substances stick
     (2) heavily soiled or greasy racks, pots, pans and trays should be brushed lightly first to remove surface soil and then soaked in a hot water/disinfecting detergent solution; (also pots/pans in which sugar-type products, e.g., frostings, were prepared)
   - —fill sink with hot water and add product
   - —wash lightly soiled items first
   - —soak tough cooked - on food for 10-20 minutes
   - —rinse in clean hot water
   - —sanitize according to local regulations
   - —air dry

c. Stainless Steel and Aluminum Surfaces/Counters
   - —clean daily, or as often as necessary
   - —use only sponges, brushes or towels since metal scouring pads can scratch the surface and mar the finish
   - —be cautious that water does not get into electrical elements or sockets
     (1) mix a solution of hot water and heavy duty detergent following manufacturer directions; apply liquid cleanser to surface on a damp sponge
     (2) rub and rinse
     (3) buff polished surfaces with a dry cloth
     (4) caution: use only sponges, brushes or towels since metal scouring pads can scratch the surface and mar the finish

d. Floors
   - —clean daily
     (1) sweep floor
     (2) rinse with hot water to flush off all loose soil and grease
     (3) mix a solution of hot water and heavy duty detergent following manufacturer directions
     (4) spread detergent/water solution over the entire floor, especially under low shelves and equipment
     (5) scrub with a mop or deck brush
     (6) rinse with clean hot water
     (7) use squeegee or damp mop to wipe off excess water
     (8) allow to air dry

(9) floor cleaning tips
—on certain dark tile floors, filming and streaking may occur. If this happens, take the following steps:
a) reduce the amount of product used
b) use a thorough wet mop-damp mop process
c) change cleaning solution more frequently

e. Range Grids, Broiler Grates, Burners, Storage Trays, Racks
—clean daily
(1) remove burned food particles with a scraper, grill stone or plastic/nylon scouring pad
(2) scrub clean with hot detergent solution
(3) rinse
(4) open clogged broiler and burner holes with a stiff wire brush
(5) rinse well and air dry
(6) sanitize food contact surfaces according to local regulations
(7) for tough greasy soils
a) wet the surface
b) add cleanser
c) scour until clean
d) rinse

f. Deep Frying Kettle and Fry Baskets
—clean at least once a week, more if equipment is in heavy use
—necessary to increase frylife, keep kettle in good condition and prevent foods or fat from developing an off-flavor
—do not use steel wool or abrasives because they can leave small particles that can contaminate food
(1) drain and filter frying fat
(2) wipe kettle with a damp cloth to remove as much oil as possible and food particles which adhere to surface
(3) fill with water
(4) add detergent following manufacturer directions
(5) place fry baskets in water
(6) set heat at low boil
(7) when water boils (at least five minutes) scrub heating units, baskets and walls with a stiff bristle brush.
(8) drain water
(9) empty kettle and wipe
(10) refill with clean water and boil for five minutes
(11) remove water and wipe kettle and baskets dry
(12) add fresh fat to within 1/2" of the fill mark (if using liquid shortenings - solids will decrease in volume)
(13) set thermostat to desired temperature
(14) after cooling to room temperature, cover fryers at end of the day to prevent dirt, insects or other contaminants from falling into frying fat

g. Grill
—constant care is necessary to prevent build up of shortening and food particles that can cause sticking, off-flavor development or flash fires
—after every use remove food particles and excess fat with a sharpened scraper or salt bag
—after busy periods
(1) pour ½ cup of water on the heated grill
(2) boil off burned-on shortening and particles
(3) remove with a scraper
—once a day remove shortening and food particle build up with a grill stone or screen
—once a month or whenever necessary
(1) use a pumice stone or grill screen with an abrasive surface to remove all seasoning, the slick hard surface formed by several even layers of grill shortening
(2) heat grill to 325°F.

(3) apply new seasoning by pouring a thin film of frying shortening over the entire surface, spread evenly with a cloth
(4) repeat several times as needed to create a slick surface

h. Fry Pans
—wipe pans clean with a dry cloth after every use
—wash with water and detergent once a week or every few days if used very heavily or sticking occurs
—do not use steel wool or abrasives on pans as they will mar the surface and cause sticking

i. Coffee Brewers
—urns
(1) rinse the brew basket with hot water after every brew cycle
(2) rinse out the urn with fresh, hot water after each period of use
(3) clean the reservoir, spray head, water gauge glass, and dispensing valve regularly
(4) rinse coffee pots after each use
—bottle brewers
(1) wipe the spray head with a clean, damp cloth and rinse the brew basket with hot water after every brew cycle
(2) remove and wash spray head and surrounding surfaces regularly
(3) rinse coffee pots after each use

j. Exhaust Filters
—clean at least once a week
—dirty filters can create a dripback into frying kettle to produce off-odors or off-flavors in food
—dirty filters can prevent normal smoke or fumes from leaving kitchen
—heavily soiled or clogged filters can ignite
(1) place dirty equipment in sink of hot cleaning solution
(2) allow to soak to loosen heavy grease and soil
(3) scrub clean
(4) sanitize food contact surfaces according to local regulations
(5) rinse in clear, hot water, shake and re-install in exhaust duct

k. Drains
—clean weekly
(1) flush drain cover and drain with clean hot water, brushing any debris off the drain cover
(2) remove drain cover and soak submerged in a solution of hot water and heavy duty detergent according to manufacturer directions
(3) sweep or scoop up loose debris in drain
(4) brush mouth of drain with a stiff brush
(5) pour a solution of hot water/heavy duty detergent down the drain
(6) rinse drain cover and replace

l. Floor/Walls or Storage Areas for Debris or Supplies
—should be cleaned at least weekly
(1) hose off surface soil
(2) mix a solution of hot water and heavy duty detergent according to manufacturer directions
(3) spread solution over entire area
(4) scrub with a brush or sponge
(5) rinse with clear warm water
(6) wipe garbage containers or shelves with a dry cloth

m. Restrooms
—clean daily and check hourly
(1) wet surface, sprinkle on cleanser generously
(2) scour until clean
(3) rinse and wipe dry
(4) note: to clean and sanitize toilet bowl, sprinkle chemically active cleanser liberally into bowl, scour and flush

n. Sidewalks Outside Area
–clean weekly
(1) wet surface, liberally sprinkle heavy duty detergent product
(2) scrub with a deck brush, hose rinse

o. Specific Cleaning Products Used in Foodservice
–follow manufacturer directions on label
–areas/items to be cleaned: products that can be used
(1) floors: Institutional Formula Tide, Clean Quick
(2) pots and pans, glasses, tableware: Foodservice Joy, Cream Suds
(3) outside areas: Institutional Formula Tide, Cream Suds
(4) extra heavy soils (filters, storage racks, trays): Institutional Formula Tide, Cream Suds
(5) fry kettles: Institutional Formula Tide, Cream Suds
(6) restrooms: Institutional Pack Comet, Institutional Pack Comet Liquid

2. Safety
–keep equipment in good working order
–use equipment as it is designed to be used
–know what to do in an emergency

a. Knives and Sharp Objects
–keep well sharpened
–store away from work surfaces
–store so they can be picked up by the handle, not the blade
–always pay attention when cutting
–keep safety guards of grinders and choppers in position
–stabilize grinders or choppers with wooden grids
–discard cracked or broken glass and china properly (they are unsafe . . . and unsanitary)

b. Hot Pots, Pans, Trays or Racks
–keep handles facing inward while cooking to prevent accidental tipping
–be certain handles are not directly over another burner
–check to make certain handles are secure
–remove covers away from face to prevent steam from scalding
–before lifting to carry, be certain area is free of traffic and debris
–use protective mitts or pot holders
–place items well away from edges of counters

c. Electric Outlets or Cords
–keep away from water, sharp objects or moving parts of equipment
–do not use if outer covering of cord is split or frayed, prongs are missing or damaged, wall outlet feels warm to the touch
–check for UL seal of approval
–disconnect before cleaning

d. Heavy Items
–balance well to carry efficiently
–use a cart to transfer long distances

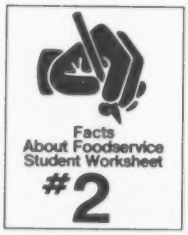
e. Floors
–keep dry
–sweep or wipe often to clean up particles that can cause slipping

f. Doors
–use vision panels in swinging doors
–keep doors well cleaned and oiled to open completely

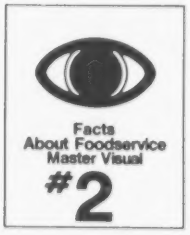
g. Prepare For An Emergency
–keep a container of salt or a fire extinguisher suitable for grease fires near the range and deep fryer

—store several fire extinguishers near the work centers of the kitchen
—know where the shut-off valves, safety buttons or other instant stop devices are located for water, gas and electricity
—be sure you know emergency telephone numbers (they should be posted in several prominent places near the telephone)
(1) fire department
(2) emergency squad or ambulance
(3) doctor
—have fire drills routinely, at least once a month
—review emergency first aid practices with all employees
—keep first aid supplies handy
(1) fire blanket
(2) adhesive tape, gauze pads and bandages
(3) salt tablets
(4) alcohol, ointment, antiseptic creams or mercurochrome
(5) splints, bandages

Suggested Learning Activities



1. Refer back to Student Worksheet #2, "What Do You Look For When You Eat Out?" How does appearance affect you as a customer? How important is it to on-the-job success? Help students plan a personal grooming schedule which is suitable for a foodservice job. Resource: Personal Care Unit, Procter & Gamble, Inc. 1975



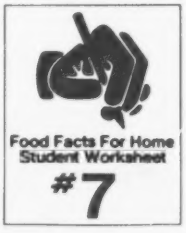
2. Use Master Visual #2, "Keeping Equipment Clean And In Good Condition" to discuss/review facts on cleaning utensils, equipment, surfaces.
3. Divide students into work groups to demonstrate cleaning techniques for deep frying kettles and baskets, the griddle, exhaust filters, floors and counters.
4. Demonstrate the proper use of sharp utensils such as knives, grinders and choppers. Have students review manufacturer directions on product use. Keep equipment manuals in one place for handy reference.
5. Invite a local firefighter into class to discuss fires in restaurants or foodservice facilities. What is the most frequent cause? What are likely complications? Discuss the importance of good ventilation, fire prevention techniques, emergency actions and sound first aid measures.
6. If a fire occurs in a local foodservice operation, visit the scene a day or so after the blaze. If possible, find out how fast the fire spread, the cause, extent of financial loss, injuries, expected time for repairs, etc. This visual lesson will expand student awareness greatly.

7. Plan a short first aid course around typical foodservice accidents including cuts, bruises, sprains, burns, dehydration or heat exhaustion.

8. Show students where shut-off equipment is in the classroom. Have each student shut-off water, gas and electricity and then return it to service. Frequently during laboratory experiences, have emergency drills. Call out, "Emergency Drill. Bob dropped a pot of boiling soup. It's all over the floor and has burned his shins and feet." Allow students to react as though it were a genuine emergency. Following their involvement, review their actions. This exercise keeps them alert to safety procedures and makes them realize that accidents can happen anytime.

9. Develop an accident reporting form to record any accidents that occur during class time. Discuss the importance of good reporting for insurance purposes as well as prompt treatment of injuries or repair of damages.

10. Use a thermometer and place a pan of frigid water on the range. Have students dip their hand into the water to identify the feel at that cold temperature. Turn on heat and have students watch the thermometer as water temperature rises. Have students dip hands again when thermometer registers 120°, the temperature at which dishes and other equipment should be washed. Continue raising temperature to the boiling point so students will identify the heat levels of water. (Use caution to avoid possible injury.)



11. Refer to the "Food Safety" Wall Chart and have students complete, then discuss Student Worksheet #7, "Keep An Eye Open for Food Safety."

Module VII. Putting It All Together

Objectives: The student will be able to:

- Analyze personal values, interests and skills and, based on them, establish tentative career goals using sound decision-making principles
- Understand the importance of managing personal resources in planning a career and fulfilling job responsibilities

Note: This is a summary section which builds on the material introduced in the preceding modules.

1. Decision-Making

a. One Decision May Limit or Increase Alternatives for Following Decisions

b. Conscious Decision-Making Is the Basis of Good Management

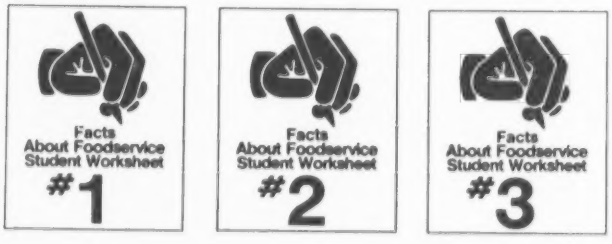
c. Decision-Making Involves the Ability to:
- –recognize the need for a decision
- –identify alternatives
- –gather facts about each alternative
- –think through the consequences of each decision
- –select an alternative and take action
- –accept consequences
- –evaluate the results of the decision

2. Management

a. Needed to Make and Carry Out a Plan for Using Resources to Achieve a Goal

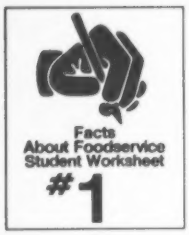
b. Phases of Managing Resources:
- –establish goals
- –gather information
- –make a plan of action
- –carry out plan as efficiently as possible through work simplification

Suggested Learning Activities



1. Have students review Student Worksheets #1, #2, #3. Based on their interviews and responses, what type of job would they like to get immediately after high school? Have their ideas changed since they began this unit? In what ways?

   Why did they pick the job they did? What interests them most about it?



2. Would they ever want to have the same job as the person they interviewed in Student Worksheet #1, "Fact Finding About Foodservice"? Why/why not?

3. Have students make a list of the entry level skills they know related to Foodservice. For example, how many can set a table? carry a tray? run a dishwasher? clean a griddle? deep fry potatoes? prepare salad ingredients?

   Encourage students to make a complete list of all the skills they know. This builds their confidence and encourages them to learn more.

4. Discuss decision-making skills. Why is decision-making important in selecting a career? What type of entry level job might lead to increased job possibilities in the future? What type might not? Why?

   Use these case studies to help students practice decision-making skills. Jot all student comments on a blackboard then summarize them.

   Karen is 22. For the past 5 years she's been a waitress in a local restaurant. Yesterday her boss asked her to join a training program which might lead to an Assistant Manager's position. If she decides to join she'll have to move to a town 25 miles away. Her new job would require about 2-3 days of travel each month. She's single now but plans to marry Jim by next spring. What facts might influence her decision? What are her alternatives? What decision might be the best for her?

   Bill was a fry cook in the Navy and now wants to start his own business. He'll need $6,000 to get started and has already saved $3,700. His mother-in-law offered to give him the rest of the money but he's not sure if he should take it since he and his wife have 3 small children and really should buy a home soon. What are the options? What would you do? Why?

   Sam and Helen started a small catering business almost by accident 5 years ago. Right after they got married, Helen started to make cakes and casseroles for family parties and soon she had people calling her and asking her to prepare food. Today they really should decide whether they want to start hiring other workers or keep the business small. What facts will they need to make a wise decision? How can they go about setting up a plan of action?

5. Have students debate the question, "Should People Plan Their Career More Than Five Years Ahead?"

   Try to get all sides of the question presented, emphasize the idea that a career does not necessarily involve "job hopping" "advancement" or other traditional "success symbols". Try to get students to identify when a person has reached a point of job contentment and competence and doesn't want to move in any other direction.

6. Encourage students to prepare a general career profile for themselves. The profile might include a number of jobs they might hope to have at various stages of their life. Beside each job the student should list what skills or requirements the job might have. If necessary, have students organize their ideas about how they'll prepare for each job that requires a special talent.

   A typical career profile might be:

   STUDENT'S NAME:

High school graduation—2 years after	salad worker; burger master; attend night school at local Jr. College for Associate Degree
After Junior College—for about 5 years	get a job with a large foodservice operation, maybe a hotel chain; perhaps something like a salesman—out of the kitchen and with some travel
5 years after working in large food-service operation	start my own coffee shop

   As an educator you would ask probing questions such as:

   - Is a salad worker a good training job for a salesperson? What other entry jobs in foodservice might be more closely related?
   - Is the personality of the student similar to that of a salesperson? Would he/she enjoy constant meeting and greeting? Would he/she enjoy the pressure of a sales job? Would he/she enjoy living on a commission basis?
   - Is a salesperson's job a good training position for owning a coffee shop?

Use this career profile exercise to encourage students to think ahead realistically.

FOODSERVICE & BAKERY PRODUCTS

CONSUMER PRODUCTS

Food Products From Procter & Gamble

If you teach in or near one of the following P&G plant cities
You and Your Class
are invited to tour our manufacturing operations:

Alexandria, LA
Augusta, GA
Baltimore, MD
Cincinnati, OH
Dallas, TX
Iowa City, IA
Lexington, KY
Sacramento, CA
Staten Island, NY

Call the local plant for additional information on days and times of tours. Reservations are required. All tours are free; they run from about one to one-and-one-half hours; they are restricted to visitors of Junior High School age and above.

TOLL-FREE 800-LINES AVAILABLE

If you have a question on any Procter & Gamble consumer product, you are welcome to call the toll-free 800-line number listed on the product package.

Please remember, 800-lines are not for student use as a classroom exercise as that would make them less accessible to consumers. As individuals, of course, students like other purchasers of our consumer products have access to 800-lines.

KITCHEN SAFETY Checklist

COOKING

- ◇ Before starting to cook, read product labels, noting any precautions.
- ◇ Use pot holders when handling heated items.
- ◇ Keep pan handles turned away from edge of range or countertops.
- ◇ Remove lids carefully from steaming pans.
- ◇ Test for steam buildup by slightly tilting lid upward and away from you.
- ◇ Remember to turn off burners and oven.
- ◇ Do not touch burners (especially electrical burners which may appear cool) until you are sure they have cooled.

FRYING

- ◇ Blot water from food before frying to prevent splattering.
- ◇ Use recommended frying temperature; if oil smokes, reduce heat.
- ◇ When heating oil, do not cover pan.
- ◇ Do not leave hot oil unattended.
- ◇ Allow oil to cool before handling.
- ◇ Do not pick up a container of flaming oil.
- ◇ Smother oil fires with a lid or use an approved fire extinguisher. Don't splatter the oil with the force of the extinguisher spray.

UTENSILS

- ◇ Keep knives sharp and stored safely out of children's reach.
- ◇ Keep drawers uncluttered.
- ◇ Put knife blades, forks and other pointed utensils point down in utensil basket of dishwasher.
- ◇ Do not plunge hands into dishwater; it may hide sharp objects.

ELECTRICAL APPLIANCES

- ◇ Before making a purchase, or using an appliance, check for an Underwriter's Laboratories (UL) label.
- ◇ Unplug appliances before cleaning or adjusting and between uses.
- ◇ Replace damaged cords or plugs.
- ◇ Do not use damaged or broken equipment.
- ◇ Keep door on automatic dishwasher closed except when loading/unloading.
- ◇ Dry hands before plugging or unplugging appliances.
- ◇ Keep hands away from cutting or grinding blades.

GENERAL

- ◇ Beware of sharp edges on lids and opened cans.
- ◇ Keep work area uncluttered.
- ◇ Close doors and drawers after using.
- ◇ Do not store food near medicines, chemicals, pesticides or cleaning supplies.
- ◇ Clean up spills promptly.
- ◇ Use a safe/secure step stool to reach high cabinets.
- ◇ Keep a first aid kit and a fire extinguisher in the kitchen.
- ◇ Treat minor burns immediately with cold water and/or ice.
- ◇ Seek medical attention promptly for anything other than minor injuries.

Most kitchens are busy places and too many accidents happen there each year.
Be alert...don't let accidents happen to you.

Student Worksheet #1

FACTS ABOUT FOOD

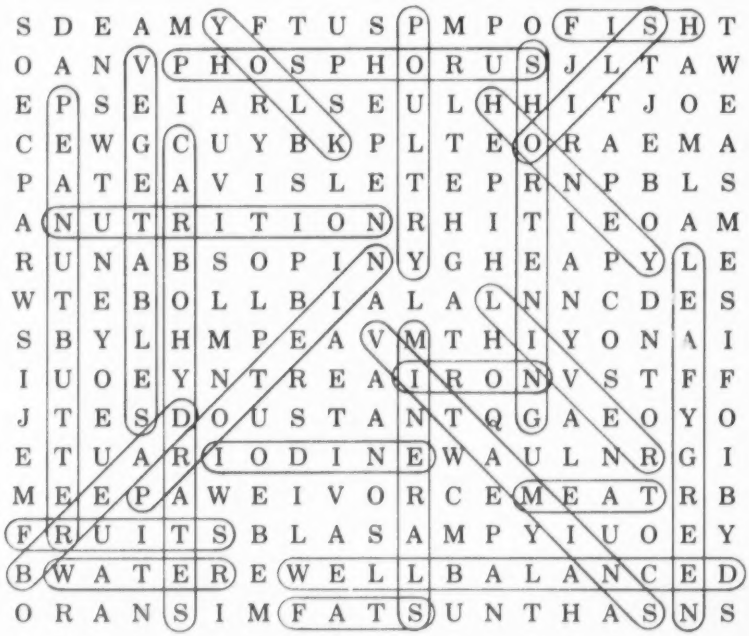
Find the words in this scramble that match the definitions below. It's a good way to sum up what you know about nutrition.

S D E A M Y F T U S P M P O F I S H T
O A N V P H O S P H O R U S J L T A W
E P S E I A R L S E U L H H I T J O E
C E W G C U Y B K P L T E O R A E M A
P A T E A V I S L E T E P R N P B L S
A N U T R I T I O N R H I T I E O A M
R U N A B S O P I N Y G H E A P Y L E
W T E B O L L B I A L A L N N C D E S
S B Y L H M P E A V M T H I Y O N A I
I U O E Y N T R E A I R O N V S T F F
J T E S D O U S T A N T Q G A E O Y O
E T U A R I O D I N E W A U L N R G I
M E E P A W E I V O R C E M E A T R B
F R U I T S B L A S A M P Y I U O E Y
B W A T E R E W E L L B A L A N C E D
O R A N S I M F A T S U N T H A S N S

1. The part of an egg which contains Vitamin A. _ _ _ _ _
2. Food category that provides protein; includes duck, capon. _ _ _ _ _ _ _ _ _
3. Bass, mackerel, haddock are some types; rich in protein. _ _ _ _ _
4. Foods that provide bulk and vitamins; beans are an example. _ _ _ _ _ _ _ _ _ _ _ _
5. Together with calcium, builds strong bones and teeth. _ _ _ _ _ _ _ _ _ _ _ _
6. Solid fat for baking or frying. Crisco is an example. _ _ _ _ _ _ _ _ _ _ _ _
7. Spread which is good for sandwiches; low cost source of protein. (2 words) _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
8. Sweet substance produced by bees; good source of energy. _ _ _ _ _ _
9. Food nutrient which provides energy; pasta and syrup are examples of food sources. _
10. Liquids used for salads or frying. _ _ _ _ _
11. Science of foods as they provide for good health. _ _ _ _ _ _ _ _ _ _ _ _
12. Vegetables rich in riboflavin. Spinach is one. (2 words) _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
13. A meat that contains much iron and Vitamin A. _ _ _ _ _
14. Chemicals which work with other nutrients to provide good health; some known by letter names such as A, C, D. _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
15. Nutrients which build body structures; calcium is one. _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
16. Liver is an excellent source of the mineral which helps build strong blood. _ _ _ _ _ _ _ _
17. Mineral in fish and sometimes added to salt; helps regulate the thyroid gland. _ _ _ _ _ _ _ _ _ _ _
18. Nutrient which promotes growth of body tissues; meat, poultry, dairy products are rich sources. _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
19. Food category which includes beef, veal, pork. _ _ _ _ _ _ _ _ _
20. Excellent sources of bulk and vitamins; apples, bananas, oranges are some. _ _ _ _ _ _ _ _ _ _ _ _ _
21. Food category that supplies thiamine, riboflavin, niacin; muffins, rolls are types. _ _ _ _ _ _ _ _ _ _ _ _
22. Accounts for about ⅔ of body weight. _ _ _ _ _ _ _ _ _ _
23. Diet which includes a good variety of all nutrients and food types. (2 words) _
24. Concentrated sources of energy; some contain vitamins A, D, E, K. _ _ _ _ _ _ _ _ _ _

Teacher Note: Answers on other side

ANSWERS



1. The part of an egg which contains Vitamin A. YOLK
2. Food category that provides protein; includes duck, capon. POULTRY
3. Bass, mackerel, haddock are some types; rich in protein. FISH
4. Foods that provide bulk and vitamins; beans are an example. VEGETABLES
5. Together with calcium, builds strong bones and teeth. PHOSPHORUS
6. Solid fat for baking or frying. Crisco is an example. SHORTENING
7. Spread which is good for sandwiches; low cost source of protein. (2 words) PEANUT BUTTER
8. Sweet substance produced by bees; good source of energy. HONEY
9. Food nutrient which provides energy; pasta and syrup are examples of food sources. CARBOHYDRATES
10. Liquids used for salads or frying. OILS
11. Science of foods as they provide for good health. NUTRITION
12. Vegetables rich in riboflavin. Spinach is one. (2 words) LEAFY GREEN
13. A meat that contains much iron and Vitamin A. LIVER
14. Chemicals which work with other nutrients to provide good health; some known by letter names such as A, C, D. VITAMINS
15. Nutrients which build body structures; calcium is one. MINERALS
16. Liver is an excellent source of the mineral which helps build strong blood. IRON
17. Mineral in fish and sometimes added to salt; helps regulate the thyroid gland. IODINE
18. Nutrient which promotes growth of body tissues; meat, poultry, dairy products are rich sources. PROTEIN
19. Food category which includes beef, veal, pork. MEAT
20. Excellent sources of bulk and vitamins; apples, bananas, oranges are some. FRUITS
21. Food category that supplies thiamine, riboflavin, niacin; muffins, rolls are types. BREAD
22. Accounts for about ⅔ of body weight. WATER
23. Diet which includes a good variety of all nutrients and food types. (2 words) WELL BALANCED
24. Concentrated sources of energy; some contain vitamins A, D, E, K. FATS

WHAT FOODS DO YOU LIKE AND WHY?

Think a minute about foods you enjoy. Then complete the following chart. You can use brand names, if you wish.

	Breakfast Favorites	Lunch Favorites	Dinner Favorites	Snack Favorites
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

How many foods appeared in more than one column? List them.

Which column was most difficult to complete? Why?

Now, look over your lists. How many types of fruit did you name? ____
Vegetables? ____ Meat? ____ Fish? ____ Poultry? ____ Dairy Products? ____

How many of the foods you listed are . . .

	All	Most	Some	None	Don't Know
Simple to make					
Easy to serve					
Low in calories					
Nutritious					
Expensive					
Unusual					
Typical of your family's religious or ethnic heritage					
Favorites of other members of your family					
Favorites of your friends					

Do you like to . . .

____ try new foods
____ eat in restaurants
____ shop for food
____ cook every day
____ eat a variety of foods
____ read articles about food
____ buy cooking or serving equipment
____ flavor foods heavily
____ snack between meals
____ invite friends to your home for meals
____ bake special desserts
____ collect recipes
____ plan foods for a party

How would you sum up your opinions and interests?

____ I am very interested in foods . . . and in cooking them.
____ I am interested in foods but not in cooking.
____ I do not care much about cooking foods or eating them.

BARGAINS, TO BUY OR NOT TO BUY

Study the grocery advertising section that appears once a week in your local newspaper. Read every ad carefully. Then, complete the following chart.

Food Bargains I'd Buy This Week	**Why I'd Buy . . .**	**Where Item Is Being Sold . . .**
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

Repeat the exercise, this time filling in the items you would *not* buy.

Food Bargains That Are Not Worth The Price To Me	**Why I Wouldn't Buy . . .**	**Where Item Is Being Sold . . .**
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

	Fruits	**Vegetables**	**Meats**	**Fish**	**Poultry**	**Cereals**	**Dessert Items**
How many of these foods were on your TO BUY List	____	____	____	____	____	____	____
NOT TO BUY List	____	____	____	____	____	____	____

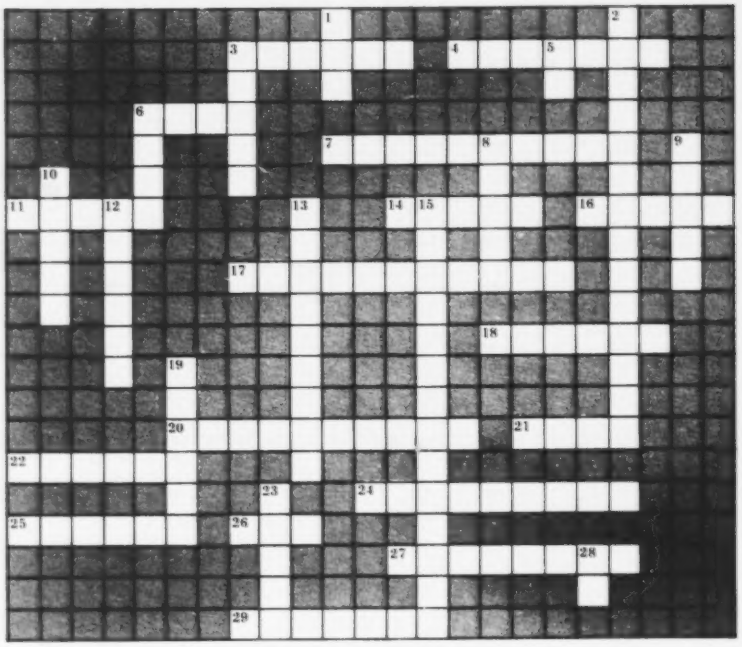
How many of the items which were on your TO BUY List and NOT TO BUY List were offered in the same store?

How many different stores are represented on your lists?

WHAT DO YOU KNOW ABOUT COOKING METHODS AND MEASUREMENTS?

The answers to this crossword puzzle put all the facts together.

When you've finished, you'll have a handy reference sheet.



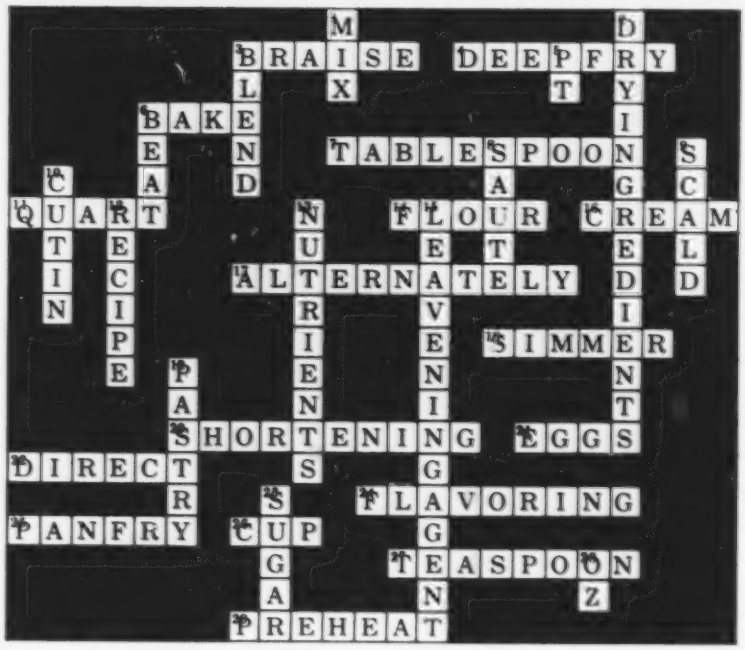
DOWN

1. To combine ingredients evenly. Not as vigorous as beating.
2. Sugar, flour, salt and all non-moist items used in cooking. (2 words)
3. To mix two or more ingredients thoroughly.
5. Abbreviation for pint.
6. To mix ingredients very well by hand or using an appliance; adds air.
8. To cook until brown in a small amount of fat. Typical method for onions.
9. To heat milk just below boiling.
10. To distribute solid fat in dry ingredients by chopping with knives or pastry blender until finely divided. (2 words)
12. Step by step directions for cooking.
13. Substances in food which keep the body healthy. Protein, vitamins, carbohydrates are examples.
15. Baking powder or other ingredient used to help product rise or increase in volume during cooking. (2 words)
19. Product made with shortening or oil, flour, salt. Used for pies.
23. Sweet ingredient added to food. In baking, helps browning.
28. Abbreviation for ounce.

ACROSS

3. To cook in a covered pan with a small amount of liquid or steam.
4. To cover food completely with hot fat for quick cooking. (2 words)
6. To cook by dry heat in an oven.
7. Measuring item, abbreviated tbsp.
11. Contains 2 pints.
14. Ingredient used in baked goods. Provides structure. Usually sifted.
16. To beat shortening or a mixture of shortening and sugar until fluffy.
17. To add part of the dry ingredients, then part of the liquid, then part of the dry and so on until all are combined.
18. To cook in liquid just below boiling point, bubbles are lazy and form slowly.
20. Solid form of fat; cut in flour to make paste.
21. Ingredients used to help bind other ones together in baking. Sometimes must be beaten or separated before using.
22. Type of heat used in frying, braising, broiling.
24. Vanilla or other ingredients added to make food more tasty.
25. To cook quickly in a skillet with a small amount of fat. (2 words)
26. Measuring item. There are 4 in a qt.
27. Measuring item. There are 3 in a tbsp.
29. To heat oven 10 minutes before putting something in it to bake.

Teacher Note: Answers on other side


MIX
DRY
BRAISE
DEEP FRY
LET
BAKE
FRYING
END
TABLESPOON
SEAT
SCALD
QUART
FLOUR
CREAM
TURN
RECIPE
ALTERNATELY
SIMMER
PAN
SHORTENING
EGGS
DIRECTIONS
FLAVORING
PANFRY
CUP
TEASPOON
GRAIN
PREHEAT

RECIPES FOR BAKING

NUT POUND CAKE

(Makes 12-16 servings)

1 package Duncan Hines Deluxe White Cake Mix
1 package vanilla instant pudding mix (4 serving size)
1/2 cup finely-chopped nuts
1/2 cup Crisco Oil or Puritan Oil
1 cup water
3 whole eggs
1 tsp. vanilla

Preheat oven to 350°. Generously grease and then flour pan. Blend all ingredients in a large bowl; beat at medium speed for 2 minutes. Bake at 350°. Cake is done when toothpick inserted in center comes out clean. (Do not test layers for doneness by touching with finger. Crust will be darker than regular layer cake.)

One tube pan, 10" or fluted	54-64 minutes
Two 8"x 1-1/2" round layers	37-42 minutes
Two 9"x 1-1/2" round layers	32-37 minutes
One 13"x 9"x 2" oblong	40-45 minutes

Cool tube cake in pan 25 minutes, then invert onto serving plate. Cool other size cakes in pan 15-20 minutes, then remove from pan and cool top side up. Frost when fully cool.

GLAZE: Heat 2/3 cup Duncan Hines Vanilla Frosting in small saucepan over medium heat, stirring constantly until thin. Pour glaze over cake.

AT ALTITUDES OVER 3500 FEET: Preheat oven to 375°. Stir 1/3 cup flour into the mix. Mix as directed using 1-1/4 cups water, 1/4 cup Crisco Oil or Puritan Oil, 3 whole eggs, 1 teaspoon vanilla, 1 pkg. vanilla instant pudding and 1/2 cup chopped nuts. Bake at 375° three 8-inch layers 27-32 min.; two 9-inch layers 30-35 mjn.; 13x9-inch pan 35-40 min.; 10-inch or fluted tube pan 45-55 min.

CORNBREAD

(Makes 8x8x2 inch square)

¼ cup Crisco or Butter Flavor Crisco Shortening
1 cup sifted all-purpose flour
1 cup yellow cornmeal
3 tsp. baking powder
1 tsp. salt
2 tbs. sugar
1 egg
1 cup milk

Preheat oven to 400°F. Combine dry ingredients in a bowl. Add Crisco and cut in. Beat egg and milk together. Add liquid to dry ingredients. Stir thoroughly. Pour into greased and floured pans. Bake at 400°F about 25 minutes.

STREUSEL COFFEE CAKE

(Makes 9x9x2 in square)

Batter:
¾ cup sugar
⅓ cup Crisco or Butter Flavor Crisco Shortening
1 egg
½ cup milk
1½ cups sifted all-purpose flour
2 tsp. baking powder
½ tsp. salt

Topping:
⅓ cup sugar
¼ cup all-purpose flour
2 tbs. Butter Flavor Crisco Shortening

Preheat oven to 375°F. Grease a 9x9x2 pan. For batter, combine sugar, Crisco and egg. Add milk and beat thoroughly. Combine flour, baking powder and salt. Stir into sugar mixture. Beat until smooth. Spread into prepared pan.

For topping, mix sugar and flour in bowl. Cut in Butter Flavor Crisco with a pastry blender or two knives until fine crumbs. Sprinkle over batter. Bake at 375°F for 30-35 minutes.

LEMON POUND CAKE

1 package Duncan Hines Deluxe Lemon Cake Mix
1 package lemon instant pudding mix (4 serving size)
1/3 cup Crisco Oil or Puritan Oil
1 cup water
4 eggs

Preheat oven to 350°. Generously grease and then flour pan. Blend all ingredients in a large bowl; beat at medium speed for 2 minutes. Bake at 350°. Cake is done when toothpick inserted in center comes out clean. (Do not test layers for doneness by touching with finger. Crust will be darker than regular layer cake.)

One tube pan, 10" or fluted	50-60 minutes
Two 8"x 1-1/2" round layers	38-43 minutes
Two 9"x 1-1/2" round layers	33-38 minutes
One 13"x 9"x 2" oblong	40-45 minutes

Cool tube cake in pan 25 minutes, then invert onto serving plate. Cool other size cakes in pan 15-20 minutes, then remove from pan and cool top side up. Frost when fully cool.

GLAZE: Use favorite flavor of Duncan Hines Ready-To-Serve Frosting. Heat 2/3 cup Duncan Hines Frosting in small saucepan over medium heat, stirring constantly until thin. Pour glaze over cake.

AT ALTITUDES OVER 3500 FEET: Preheat oven to 375°. Stir 1/2 cup flour into mix. Mix as directed using 1-1/2 cups water. 1/4 cup Crisco Oil or Puritan Oil, 4 eggs and 1 package lemon instant pudding. Bake at 375°; three 8-inch layers 30-35 min.; two 9-inch layers 40-45 min.; 13x9-inch pan 38-43 min.; 10-inch or fluted tube pan 45-50 min.

BISCUITS

(Makes 16 medium biscuits)

2 cups sifted all-purpose enriched flour
1 teaspoon salt
3 teaspoons double-acting baking powder
⅓ cup Crisco Shortening
¾ cup milk

Preheat oven to 425°. In a bowl mix flour, baking powder and salt. With a pastry blender, two knives or a fork, cut in Crisco until mixture looks like coarse meal. Add milk and stir just enough to hold dough together. Place on a lightly-floured board or pastry cloth. Knead lightly about 10 times. Roll dough ½-inch thick. Cut with floured biscuit cutter and place on an ungreased cookie sheet.

Bake at 425° for 12-15 minutes or until brown as desired.

PIE CRUST

(For 9-inch double crust)

2 cups sifted all-purpose enriched flour
¾ cup Crisco or Butter Flavor Crisco Shortening
1 teaspoon salt
3-4 tablespoons water

Preheat oven. Sift flour before measuring; spoon lightly into measuring cup and level without shaking or packing down. Combine flour and salt in mixing bowl. With a pastry blender or two knives, cut Crisco until uniform; mixture should be fairly coarse. Sprinkle with water, a tablespoon at a time; toss with a fork. Work dough into a firm ball with your hands.

Divide dough into two parts and press into flat circles with smooth edges. On a lightly floured surface, roll bottom crust to a circle about 1½ inches larger than inverted pie plate. Gently ease dough into plate. Trim edge even with plate and add filling. Moisten rim of bottom crust with water. Roll top crust the same way and lift onto filled pie. Trim ½-inch beyond edge of plate. Fold top edge under bottom crust and flute with fingers or fork. Prick or slit top crust to allow for escape of steam. Bake according to time and temperature recommended for filling used.

FOR SINGLE CRUST, use 1⅓ cups sifted all-purpose enriched flour, ½ teaspoon salt, ⅓ cup Crisco, 2-3 tablespoons water. Mix as for double crust. Press dough into a flat circle with smooth edges. On a lightly floured surface, roll dough to a circle about 1½ inches larger than inverted pie plate. Gently ease dough into plate. Be careful not to stretch the dough. Trim ½-inch beyond edge of plate; fold under to make a double thickness of dough around rim and flute with fingers or fork.

For a single crust baked with filling, bake according to time and temperature recommended for filling used.

For a single crust baked without filling, prick bottom and sides thoroughly with fork. Bake at 425° for 10-15 minutes or until brown as desired.

HOW WOULD YOU RATE YOUR PASTRY?

Compare your pastry with the ratings used by experts in judging award winning products.

Characteristic	Possible Points	Your Score	How Would You Describe Your Product?
Appearance			
Uniform brown crust, attractive finished edges	15		
Medium thin, crisp crust	10		
Eating Quality			
Tender, flaky	60		
Bland flavor	15		
TOTAL SCORE	100		

Which pastry making method did you use? Why?

Which directions in the recipe, if any, were most difficult to follow? Why?

What filling did you use for your pastry? How would you rate it on the following scale? Place an X at the point which best describes your rating.

Type of Filling _____		Excellent	Fair	Poor
	Flavor _____			
	Texture _____			
	Appearance _____			

What, if anything, will you do differently the next time you make this same type of filling?

HOW WOULD YOU RATE YOUR CAKE?

Compare your cake with the ratings used by experts in judging award winning products.

Characteristic	Possible Points	Your Score	How Would You Describe Your Product?
Appearance			Type of cake:
Baked layers about same height as cake pan	15		
Slightly rounded top, uniform in color, golden brown	10		
Crumb, a uniform fine structure, thin cell walls	10		
Eating Quality			
Tender	10		
Light, velvety or feathery texture	15		
Moist	20		
Good blend of ingredients for a pleasant flavor	20		
TOTAL SCORE	100		

Which cake making method did you use? Why? Do you think this method is easier or more difficult than other ones? Why?

Which directions in the recipe, if any, were most difficult to follow? Why?

What type of frosting did you use, if any? Rate it on the following scale. Place an X at the point which best describes your judgment.

Type of Frosting _____		Excellent	Fair	Poor
	Flavor _____			
	Texture _____			
	Appearance _____			

Do you think this was a good choice of frosting, considering your skills and the type of cake you made? Why/why not?

HOW WOULD YOU RATE YOUR BISCUITS?

Biscuits are a soft dough quick bread. Compare your product with the ratings of experts.

Characteristic	Possible Points	Your Score	How Would You Describe Your Biscuits?
Appearance			
Even size	10		
Smooth, golden top	10		
Top crust tender	5		
Flaky, slightly moist texture	30		
Eating Quality			
Creamy, light, tender crumb	15		
Fine grain	10		
Mild flavor, not bitter	20		
TOTAL SCORE	100		

Break a biscuit in half. Can you count the layers? How many, more or less, can you see?

How were these layers formed? What process did you use to get them into the product?

What leavening agent did you use in your biscuits? Name at least one other leavening agent that could be used for biscuits.

What type of fat did you use? Why?

Could you have used butter? Why/why not?

Could you have used olive oil? Why/why not?

HOW WOULD YOU RATE YOUR CORNBREAD?

Cornbread is a quick bread made from drop batter. Compare your product with the ratings of experts.

Characteristic	Possible Points	Your Score	How Would You Describe Your Cornbread?
Appearance			
Top pebbly looking	25		
Surface even shaped-slightly rounded	25		
Inside even grained, no tunnels	25		
Eating Quality			
Light	5		
Slightly moist, tender crumbs	10		
Mild flavor	10		
TOTAL SCORE	100		

Did you overbeat your cornbread? How would you know if you had?

Was the oven preheated when you put your cornbread into it? How would you know if it was not preheated?

What did the cornbread batter look like when you put it into the baking pan?

The next time you make cornbread, what will you do differently, if anything?

Which cornbread making step was most difficult, as far as you're concerned?

What other products can be made using the cornbread method of mixing?

Student Worksheet #10

RECIPES FOR FRYING

Pan Frying

PAN FRIED CHICKEN
(Makes 4 servings)

One 2½ to 3 pound frying chicken, cut into serving pieces (6-8 pieces)
⅓ cup + 2 tablespoons Crisco Shortening, Crisco Oil or Puritan Oil
¾ cup flour
1 teaspoon salt
¼ teaspoon pepper

In paper or plastic bag, combine flour, salt, and pepper; add chicken, a few pieces at a time; shake to coat.

Preheat shortening or oil in electric skillet to 365°F, or use medium-high heat of range. Fry chicken for 30 to 40 minutes, uncovered, without lowering the heat.

Turn chicken 4 to 5 times during frying for even browning.

COUNTRY FRIED POTATOES
(Makes about 4 servings)

3 large potatoes
¼ cup Crisco Shortening, Crisco Oil, or Puritan Oil (for 10" pan)
Salt & pepper

Pare potatoes. Slice ⅛ inch thick. Fry in hot shortening or oil over low heat. Season with salt & pepper. When underside of potatoes has browned, turn and fry slowly on other side. Leave skillet uncovered.

Shallow Frying

QUICK SALMON PATTIES
(Makes 4 to 6 servings)

1 can (16 ounces) pink salmon
1 egg
⅓ cup minced onion
½ cup flour
1½ teaspoons baking powder
1½ cups Crisco Shortening, Crisco Oil or Puritan Oil for shallow frying

Drain salmon; reserve 2 tablespoons liquid. In mixing bowl, combine salmon, egg, and onion; stir in flour. Combine baking powder and the reserved liquid; stir into salmon mixture. Form in small patties; shallow fry in hot shortening or oil until golden, about 5 minutes. Serve with tartar sauce.

FRIED FISH
(Makes 4 servings)

¼ cup flour
1 teaspoon salt
1 egg
2 tablespoons water
4 fish fillets or steaks
½ cup fine dry breadcrumbs
½ cup Crisco Shortening, Crisco Oil or Puritan Oil

In shallow bowl, combine flour and salt. In another bowl, combine egg and water. Dip fish in flour mixture, then in egg mixture, and finally in crumbs. In skillet, fry fish in hot shortening or oil on both sides until tender and golden, 20 minutes.

Deep Frying

FRENCH FRIED POTATOES
(Makes about 4 servings)

4 medium potatoes
Salt
Crisco Shortening, Crisco Oil or Puritan Oil (Fill fryer or pan not more than ½ full)

Pare potatoes and cut into ⅜-inch strips. Rinse or soak in cold water. Dry potatoes well on cloth or paper towels. Deep fry half the potatoes at a time in shortening or oil heated to 365°F. Cook until tender and golden brown, 5-7 minutes. Drain on paper towels. Keep hot in oven set at low temperature. Sprinkle with salt. Serve hot.

A NEW TWIST–
Season with garlic salt, onion salt, or celery salt.

FRANK-FRITTERS
(Makes 6 servings)

1 tablespoon Crisco Shortening melted, Crisco Oil or Puritan Oil (fill fryer or pan not more than half full)
1 egg
½ cup milk
¾ cup sifted all-purpose enriched flour
⅛ teaspoon red pepper
½ teaspoon dry mustard
½ teaspoon baking powder
½ teaspoon salt
12 Frankfurters

Combine the melted shortening or oil, the egg, and milk. Combine dry ingredients; add to shortening or oil mixture and mix until smooth. Dip frankfurters in batter and fry until golden in deep shortening or oil heated to 365°F.

HOW WOULD YOU RATE YOUR FRIED FOODS?

Compare your results with the standards set by experts.

Name of Product: _____ Method of Frying: _____

_____

_____

_____

Characteristic	Possible Points	Your Score	How Would You Describe Your Fried Product?
Appearance			
Golden brown surface	20		
Uniform color and shape	20		
Texture			
Crisp, tender, light	20		
Flavor			
Fresh, true flavor of food, not greasy	20		
Uniformly cooked	20		
TOTAL SCORE	**100**		

Did you have any of the following problems? If so, what caused them?

Possible Problems	NO	YES	Probable Causes
Food sticking to pan			
Spattering			
Food tastes greasy			
Fat smokes			
Fat bubbles over in deep or shallow frying			

What type of fat did you use? Why? Would you use the same product again? Why/why not?

WHAT DO YOU KNOW ABOUT FOOD SAFETY?

Knowing about food safety can help save nutrients as well as money.
Complete this exercise to sum up the food safety facts you know or those you can learn more about.

	Good Idea? Bad Idea?	Explain Your Answer Here.
1. Rinsing dishes with cool water.		
2. Placing leftover cooked vegetables in a closed jar.		
3. Allowing a roast to cool on a counter, uncovered, for 30 minutes before serving.		
4. Storing a jar of mayonnaise which is half full on a shelf.		
5. Allowing frozen vegetables to thaw at room temperature for several hours before cooking.		
6. Washing hands before putting away groceries after shopping.		
7. Buying foods in containers that can be re-sealed tightly after opening.		
8. Placing fresh lettuce in an air-sealed container for storage.		
9. Buying frozen foods which have moisture or water marks on the label.		
10. Washing fresh produce with cool water before cooking or serving.		
11. Using the same spoon to stir soup and "taste" it for proper seasoning.		
12. Inspecting packages as you shop to be certain they are tightly sealed.		

On the back of this sheet, list some ways that proper food safety habits could help save nutrients and money.

WHAT MAKES A MICROWAVE OVEN WORK?

As a review, complete this word scramble to identify the parts which help a microwave oven to work safely, quickly, conveniently and efficiently.

1. RISETRR DABEL
_____ _____
A moving fan-like device which helps distribute microwaves inside a microwave oven.

2. TALEM LAWLS
_____ _____
Top, sides and bottom of a microwave oven which hold the microwaves inside it.

3. ODOR LEAS
____ ____
Soft, flexible piece which allows the door to close firmly so that no microwaves leave the oven during cooking.

4. GARMONTEN BUTE
_____ ____
Device which transmits microwaves into oven

5. TRISME
_____
Clock-like items which turn the microwave oven on and off.

6. BAURLENTT
_____
A moving tray which turns food so microwaves can penetrate all sides of it.

7. LEVABIRA WEPOR
_____ _____
A feature which enables a microwave oven to be used for thawing, slow cooking, roasting, baking and many other purposes.

8. TESFAY CLOSK
_____ _____
Every microwave oven has at least two of these; they stop microwaves from entering the oven when the door is opened.

9. LASGS RYAT
_____ ____
One type of platform used to raise food from the bottom of a microwave oven so food can penetrate it from all sides; a ceramic shelf can also be used.

10. GISTANND MITE
_____ ____
The final stage of cooking; occurs after food is removed from a microwave oven; very important.

Teacher Note: Answers on other side

ANSWERS

1. STIRRER BLADE
2. METAL WALLS
3. DOOR SEAL
4. MAGNETRON TUBE
5. TIMERS
6. TURNTABLE
7. VARIABLE POWER
8. SAFETY LOCKS
9. GLASS TRAY
10. STANDING TIME

COMPARING CAKES, CONVENTIONAL AND MICROWAVE METHODS

Use this chart to compare conventional and microwave cooking methods.

FACTORS TO COMPARE	Conventional Method	Microwave Method
1. Method for blending ingredients		
2. Baking container/equipment		
3. Oven Temperature/Power Settings		
4. Baking Time		
5. Appearance When Removed From Oven		
6. Standing and/or Cooling Time		
7. Appearance of Finished Product; color and surface characteristics		
8. Volume, Texture When Finished		
9. Flavor		
10. Additional Comments/Observations		

RECIPES FOR MICROWAVE COOKING

Apple Crisp

(Makes 9-12 servings)

1 20 oz. can apple pie filling
1 Duncan Hines Deluxe Spice Cake Mix
1/2 cup butter or margarine, melted
3/4 cup quick oats

Spread pie filling into bottom of 8"x 12" or 8" square glass dish. Melt butter in a large mixing bowl (High for about 1 minute). Add cake mix and oats. Mix on low speed or cut together with a fork until all cake mix is combined with butter. Sprinkle over pie filling.

Microwave on High for about 14 minutes. For ovens without carrousels, rotate dish a 1/2 turn after 7 minutes.

Chocolate Frosting

1/3 cup Crisco or Butter Flavor Crisco Shortening (melted)
3/4 cup cocoa
1/4 teaspoon salt
1/3 cup milk
2 teaspoons vanilla
1 lb. confectioners' sugar

In glass mixer bowl, melt Crisco on High in microwave oven for 1 minute. Add cocoa and salt mixing on low speed. Then add milk and vanilla. Mix in sugar in 3 parts. Mix until smooth and creamy. Add more sugar to thicken or milk to thin for good spreading consistency.

Cherry Chocolate Crunch

1 large (1 lb. 14 oz.) can cherry pie filling
1 Duncan Hines Deluxe Devil's Food or Chocolate Cake Mix
1/2 cup butter or margarine (1 stick)
1 cup chopped nuts
1 cup shredded coconut

Spread pie filling into bottom of 8"x 12" or 9" square glass dish. In large glass mixing bowl, melt butter on High for 1 minute. Add dry cake mix, nuts and 3/4 cup coconut. Mix on low speed or cut together with a fork until all cake mix is combined with butter. Sprinkle over pie filling.

Microwave on High for about 14 minutes. Turn once if necessary. Sprinkle to with remaining 1/4 cup coconut.

Fast Blueberry Coffee Cake

1 pkg. Duncan Hines Blueberry Muffin Mix
2 tablespoons Crisco Oil or Puritan Oil
1 egg
½ cup water
⅓ cup brown sugar
1 teaspoon cinnamon

TOPPING: Pour mix into 8" or 9" round glass or plastic baking dish. For topping, remove 1 tablespoon of mix and place in small bowl. Add to small bowl the brown sugar and cinnamon; mix with fork and set aside.

COFFEE CAKE: Empty blueberries into strainer. Wash under cold running water. Set aside to drain. Add the egg, oil, and water to the dish containing the mix. Mix with fork until blended (about 1-2 minutes). Sprinkle drained blueberries onto batter and fold in gently with fork. Cover dish with wax paper.

BAKE: Cook in microwave 2 minutes on High; turn dish ½ turn; cook additional 2 minutes (covered). Cake is done when only slightly moist on top—DO NOT OVERBAKE. (Lower wattage ovens may require longer baking time). Remove wax paper and sprinkle topping evenly over hot cake. Cook one minute uncovered on High. Let stand 10 minutes on flat surface.

Banana Cream Pie

CRUST: 5 tablespoons Butter Flavor Crisco Shortening
1⅓ cups fine graham cracker crumbs
2 tablespoons brown sugar

FILLING: 1 small pkg. vanilla pudding mix (3 to 3⅝ oz.)
2 bananas
2 cups milk

To prepare crust, melt Butter Flavor Crisco Shortening in 9" or 10" glass pie plate on High for about 1 min. Stir in crumbs and sugar until moistened. Press crumbs firmly and evenly against bottom and sides of plate. Microwave 1 minute, rotate ½ turn and microwave ½ minute more. Remove from oven and cool.

To prepare filling add 1 pkg. pudding mix to glass bowl. Measure 2 cups milk; stir ⅓ cup into mix until smooth; add remaining milk. Microwave on High for about 3 minutes. Stir and microwave 1-4 minutes, stirring mixture every minute until it begins to boil. Cool slightly. Add sliced banana into pie crust and top with pudding.

FACT FINDING ABOUT FOODSERVICE

One of the best ways to learn about a career is to talk with a person who's working in a job similar to one you might want. Interview a person in foodservice and complete the following questions.

1. What is your exact job title?

2. What are your exact job responsibilities?

3. How did you find your job?

4. Does your job require a high school diploma? What special training did you need to qualify for this job? Where did you get it?

5. What do employers look for in a person who's looking for a job like this?

6. Did you have other jobs in foodservice before this one? If so, what were they?

7. How long have you been with this company? Have you worked at the same job the entire time? What special benefits do you get by working for this company? (For example, paid vacations, health insurance, paid eduation, etc.)

8. Are other jobs like yours available? If so, how would you recommend learning about them?

9. What are the advantages of this type job?

10. What advice would you give to a young person who wanted to train for a job like yours?

Student Worksheet #2

WHAT DO YOU LOOK FOR WHEN YOU EAT OUT?

How important is it that the . . .	NOT IMPORTANT	SOMEWHAT IMPORTANT	VERY IMPORTANT
Host/hostess smiles and says "hello" when you arrive.			
Table is clean and set before you're seated.			
Floor or carpet is spotless.			
Tables are spaced far enough apart so other people cannot hear you talking in a normal voice.			
Waiters/waitresses are neat and well-groomed.			
Menu describes the ingredients in all foods listed.			
Food looks appetizing when it is served.			
Waiter/waitress takes food back to the kitchen without complaint if you request it.			
Manager is available for complaints, if you have any.			
Trays are bussed quietly from the dining room.			
Employees seem to be friendly and work well together.			
Check is clearly written so you can review it if you want.			

1. Place an X at the rating which best describes your opinion.

2. Study over your rankings, then determine how you would describe yourself as a customer.

____ More particular than most people

____ Just about as particular as most people

____ Much less particular than other people

____ Most interested in food than in service

____ Equally interested in food and in service

____ More interested in good service than in food.

WORK, WHAT'S IN IT FOR ME?

ASPECTS OF A JOB	VERY IMPORTANT	SOMEWHAT IMPORTANT	NOT IMPORTANT AT ALL	I DON'T KNOW	RANK
A high salary Enjoy kind of work Plenty of vacation					
A chance to help other people					
Regular working hours					
A chance to be promoted					
Job security					
Job duties spelled out clearly					
Friendly co-workers					
Pleasant surroundings					
A good boss					
The chance to supervise other people					
Good health insurance and other benefits					
The chance to continue my education					
A variety of responsibilities					
The chance to be creative					

1. People have many different ideas about what is most important in a job. Look over the list above and check the column which best describes your opinion about each item.
2. Look over your list. In the last column rank the items from 1–very important to 14–least important.
3. Would you say you have a clear idea of what's important to you? Why/Why not?
4. On the back of this sheet, list some jobs in foodservice you think might suit you. List as many as you like.

COMPLETING A JOB APPLICATION

The first step in getting any job is filling out a job application correctly. Practice (print or type) on this one which contains some typical questions:

APPLICATION FOR EMPLOYMENT

PERSONAL DATA

Name: _____ Today's Date _____

Address: _____ Social Security # _____

_____ Telephone: _____
city state zip (area code)

I am willing to undergo a physical examination: ___ Yes ___ No

EDUCATION

SCHOOL	NAME & LOCATION	FROM/TO	NO. YEARS COMPLETED	FIELD OF STUDY
High School				
College				
Other				

WORK EXPERIENCE (Begin with most recent employer)

Name of Employer _____ Address _____

Nature of Your Work _____ Average Earnings _____

Dates Mo./Yr. _____ Mo./Yr. _____

(From _____ To _____)

Reason for Leaving _____

Name of Immediate Supervisor _____ May We Contact? _____ Telephone # _____

Type of position desired _____ Salary Expected _____

When would you be available to begin? _____

ACTIVITIES

List Scholastic Honors and Activities, Offices Held; Indicate if High School or College. Exclude activities, organizations, societies, etc., the name or character of which indicate the race, religion, sex, age, or national origin of its members.

Scholastic Honors: _____

School Activities - (class organizations, clubs, publications, athletic teams, etc.): _____

Hobbies and Outside Interests (including community activities): _____

DO'S AND DON'TS FOR DEEP FRYING.

Look over this list. Beside each item, check the Do or Don't column. Give your reason for each choice.

When Deep Frying . . .	Do	Don't	Reason
Buy fat by comparing value and fried food quality			
Use copper or brass equipment			
Filter oil daily			
Heat oil to 425°			
Reduce heat on fryers not used for 15 minutes or more			
Check thermostat once a month			
Repair fry baskets as needed			
Fry popular foods ahead			
Wipe off excess crumbs and blot moisture if necessary			
Fry frozen foods still frozen			
Fill baskets ¾ full			
Cook bacon in the fryer			
Drain food 5 minutes over the hot fat			
Skim fat after every use			
Salt foods away from kettle			
Serve foods immediately			
Discard shortening after normal frylife			
Use steel wool to clean fry baskets			
Use a high suds disinfecting detergent to boil out kettle			
Add clean water after washing kettle and return to a boil			
Cover fryers at end of the day			
Clean exhaust filter every six months			
Check for dripback from exhaust vents if off-flavors develop			
Dowse a fat fire with water			
Turn off electricity in case of fire			

CONSIDERING COOKING METHODS

How would you prepare the following foods? Complete this chart with the proper temperature and techniques you would use. Explain your answers in the column on the right. Hint, there may be more than 1 good method.

FOODS	Temperature	Method	Reason
Chicken			
Frozen Shrimp			
Pancakes			
Hamburgers			
Doughnuts			
Sausage			
Bacon			
Tossed Salad			
Hashed Brown Potatoes			
Turkey Salad			

KEEP AN EYE OPEN FOR FOOD SAFETY

The next time you visit a restaurant, make a record of the food safety practices you observe.

	How was the food stored?	Advantages/Disadvantages of this storage procedure
1. Cream or milk for coffee		
2. Lemon slices for tea		
3. Lettuce for sandwiches		
4. Ketchup or mustard		
5. Fresh pastries or doughnuts		

1. Could you see sandwiches or other foods being prepared? If so, how would you describe the work surfaces and the worker? Clean, neat, orderly?

2. Did you see any people touching food? Were their hands clean? Did they use paper napkins or tongs to pick up items such as doughnuts, pickles, etc.?

3. Did you see where the food was kept between the time it was ready to serve and the time you received it? Was it covered? Was it placed under a heating lamp?

4. Did you see anyone washing plates, utensils or other equipment? What procedures did they use? Did they rinse the items with hot water? Would you rate their washing procedures as excellent, good, fair or poor? Why?

5. How did the person who served the food handle the dishes when you were finished eating? Were the dishes stacked one on top of another or carried away separately? Were cigarette butts, napkins or other items placed in the leftover food or on dishes?

KNOWING ABOUT NUTRIENTS

KEY NUTRIENT	WHAT IT DOES	WHERE IT'S FOUND
WATER		
PROTEIN		
CARBOHYDRATE		
FAT		
VITAMINS		
MINERALS		

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SOME BASIC INGREDIENTS

TYPE	FUNCTION	HOW MEASURED?

PLANNING ON CAKE

BAKING SKILLS NECESSARY

CONVENIENCE

COST

WHAT CAKE TO MAKE?

PEOPLE WHO WILL BE EATING IT

TIME AVAILABLE

OCCASION

POSSIBLE CHOICES

1. _____

2. _____

3. _____

COMPARING FRYING METHODS

	PAN FRYING OR SAUTÉING	SHALLOW FRYING	DEEP FRYING
AMOUNT OF SHORTENING:			
FOODS TYPICALLY PREPARED THIS WAY:			
EQUIPMENT NEEDED:			
METHOD:			

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COMPARING JOB OPPORTUNITIES IN FOODSERVICE

	SMALL COMPANY	MEDIUM-SIZED COMPANY	LARGE COMPANY
ESTIMATED NUMBER OF EMPLOYEES			
JOB RESPONSIBILITIES			
CHANCE TO LEARN OR TRY NEW SKILLS			
SALARY			
BENEFITS			
OPPORTUNITIES TO ADVANCE			
JOB SECURITY			
PERSONAL SATISFACTION			

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KEEPING EQUIPMENT CLEAN AND IN GOOD CONDITION

ITEM TO BE CLEANED _____

STEPS TO FOLLOW:

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Food Safety Checklist

BEFORE YOU BUY

- ☐ Choose packages that are tightly sealed.
- ☐ Select cans that are not dented or bulging.
- ☐ Pick fresh foods which are firm and undamaged.

WHEN YOU PREPARE FOODS

- ☐ Wash hands before handling food.
- ☐ Be sure your hair is pulled back or covered.
- ☐ Use clean utensils.
- ☐ Rinse or thoroughly clean fresh foods with cool water.
- ☐ Read package labels carefully.
- ☐ Follow recipe directions exactly.

AS YOU SERVE FOODS

- ☐ Serve on thoroughly clean dishes, use clean utensils.
- ☐ Serve at the correct temperature, cold/hot.
- ☐ To avoid spoilage, cut down on serving delays. Cover foods, if necessary.
- ☐ Along with safety, keep appetite appeal in mind. Arrange foods attractively.

AFTER YOU EAT

- ☐ Repackage food which doesn't need refrigeration.
- ☐ Place leftovers quickly in covered containers in the refrigerator.
- ☐ Wash dishes thoroughly.
- ☐ Put garbage in a covered container or disposal.

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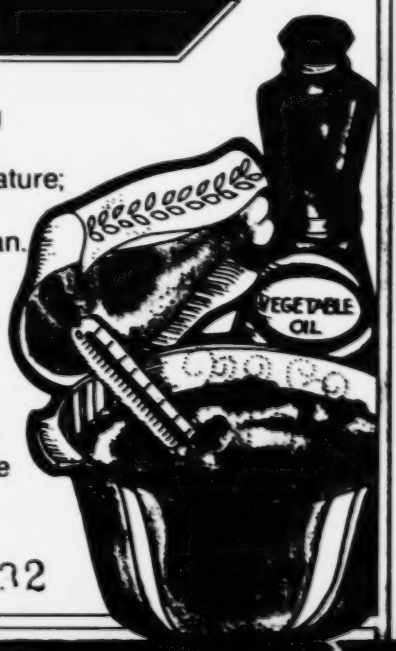
KITCHEN SAFETY Check

COOKING

- Before starting to cook, read product labels, noting any precautions.
- Use pot holders when handling heated items.
- Keep pan handles turned away from edge of range or countertops.
- Remove lids carefully from steaming pans.
- Test for steam buildup by slightly tilting lid upward and away from you.
- Remember to turn off burners and oven.
- Do not touch burners (especially electrical burners which may appear cool) until you are sure they have cooled.

FRYING

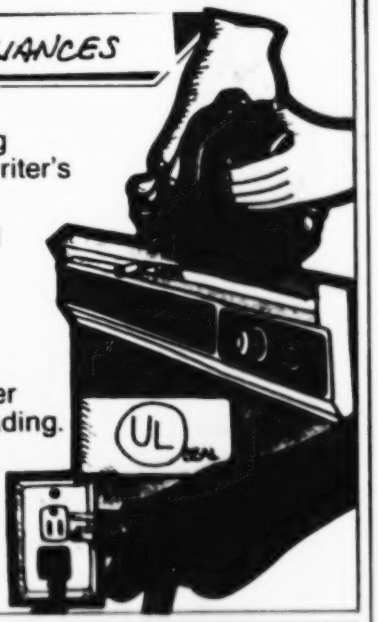
- Blot water from food before frying to prevent splattering.
- Use recommended frying temperature; if oil smokes, reduce heat.
- When heating oil, do not cover pan.
- Do not leave hot oil unattended.
- Allow oil to cool before handling.
- Do not pick up a container of flaming oil.
- Smother oil fires with a lid or use an approved fire extinguisher. Don't splatter the oil with the force of the extinguisher spray.



UTENSILS

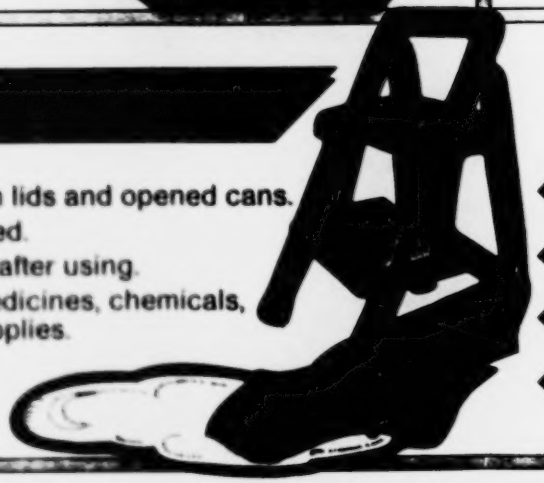
- ◇ Keep knives sharp and stored safely out of children's reach.
- ◇ Keep drawers uncluttered.
- ◇ Put knife blades, forks and other pointed utensils point down in utensil basket of dishwasher.
- ◇ Do not plunge hands into dishwater; it may hide sharp objects.

ELECTRICAL APPLIANCES



- ◆ Before making a purchase, or using an appliance, check for an Underwriter's Laboratories (UL) label.
- ◆ Unplug appliances before cleaning or adjusting and between uses.
- ◆ Replace damaged cords or plugs.
- ◆ Do not use damaged or broken equipment.
- ◆ Keep door on automatic dishwasher closed except when loading/unloading.
- ◆ Dry hands before plugging or unplugging appliances.
- ◆ Keep hands away from cutting or grinding blades.

GENERAL



- ◆ Beware of sharp edges on lids and opened cans.
- ◆ Keep work area uncluttered.
- ◆ Close doors and drawers after using.
- ◆ Do not store food near medicines, chemicals, pesticides or cleaning supplies.
- ◆ Clean up spills promptly.

- ◆ Use a safe/secure step stool to reach high cabinets.
- ◆ Keep a first aid kit and a fire extinguisher in the kitchen.
- ◆ Treat minor burns immediately with cold water and/or ice.
- ◆ Seek medical attention promptly for anything other than minor injuries.

Most kitchens are busy places and too many accidents happen there each year.
Be alert...don't let accidents happen to you.

FOOD PREPARATION . . . FOR HOME . . . FOR FOODSERVICE

Procter & Gamble teaching aids are also available on:

- **CONSUMER ADVERTISING**
- **CONSUMER CHOICE**
- **LAUNDERING, CLEANING, DISHWASHING**
- **PERSONAL CARE**

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YOU ARE INVITED TO COMMENT ON OUR EDUCATIONAL MATERIALS...

We will welcome your suggestions and questions on this teaching kit or on any of our materials.

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